EXHIBIT G

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Shenandoah 5, WR 51 #4 Appraisal Well Proposal

January 21th, 2016

2016-2017 Shenandoah Appraisal Program Update

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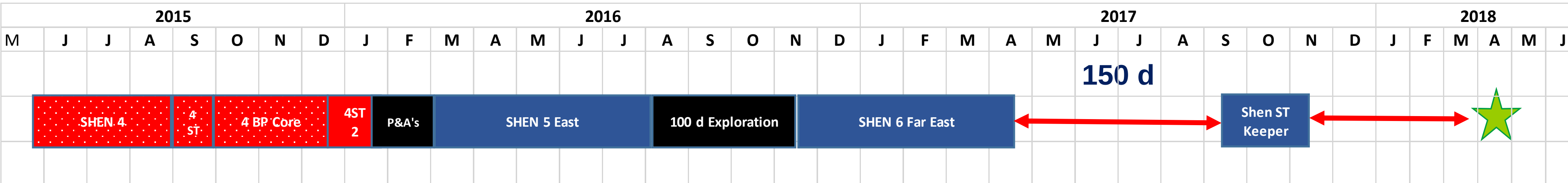
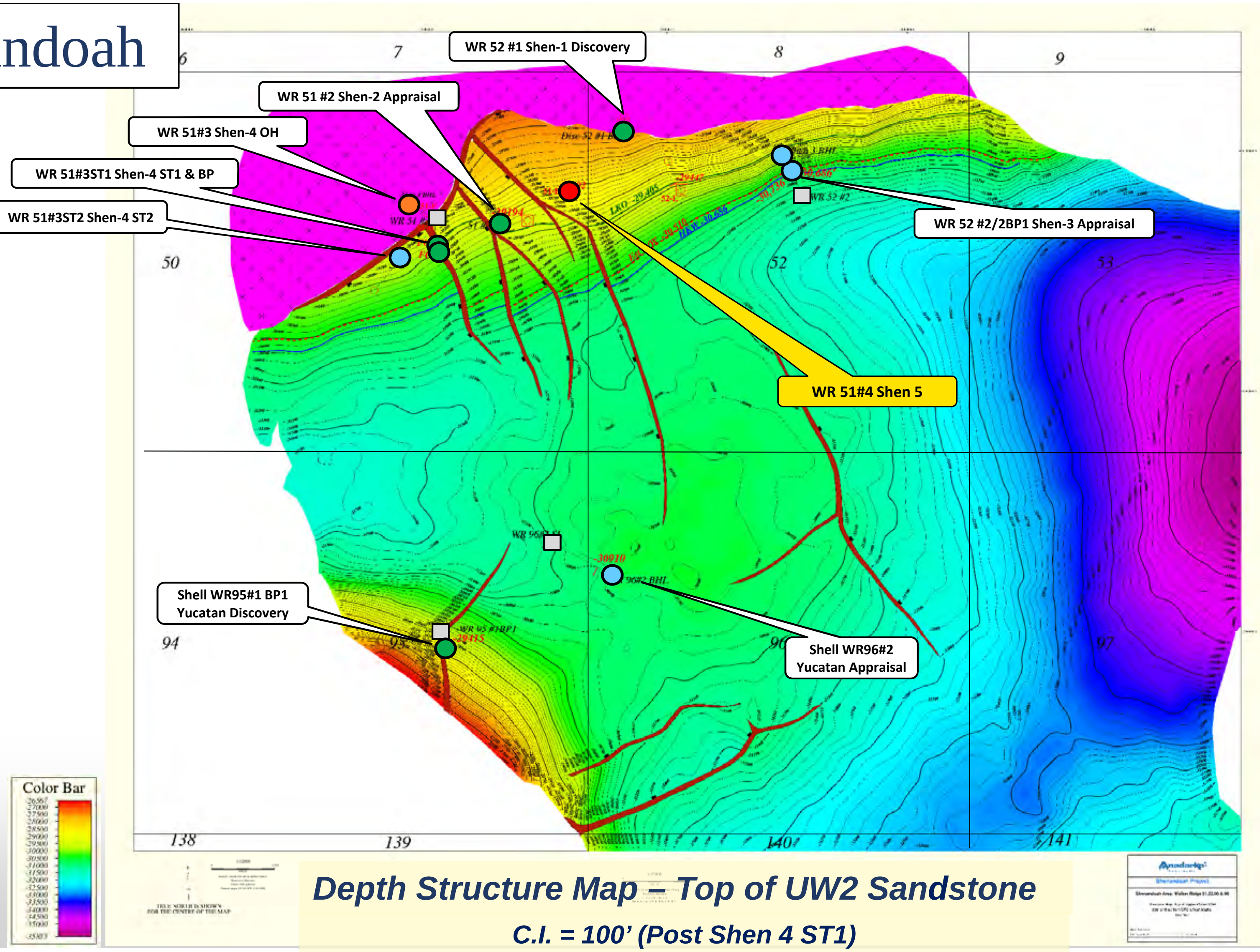


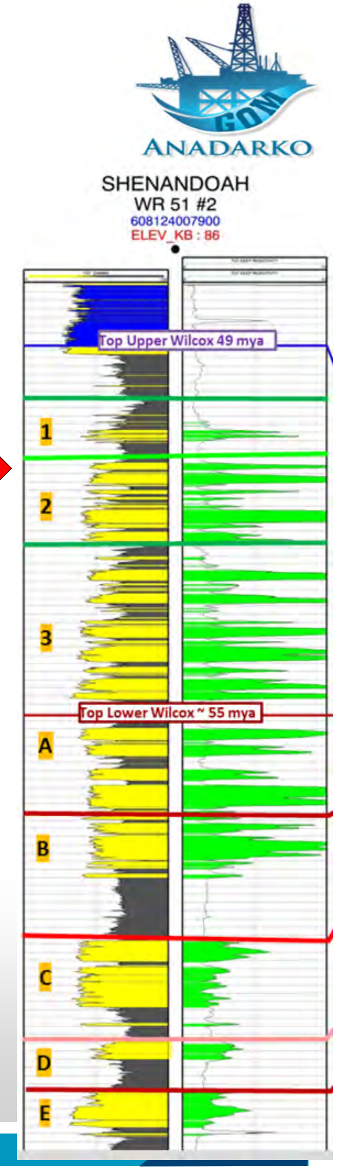
- **AFE Cost of $210 MM to drill & Evaluate East Flank of Shenandoah Structure**
- **Well Appraisal Findings and future appraisal assumptions:**
  - Shen 4ST & bypass wells reveal additional Structural Complexity on West Flank
  - Achieving Commercial Threshold likely requires success at Shen 5 & Shen 6
  - ST Keeper well tentatively scheduled for Q4, 2017 – final predevelopment penetration
  - Extends SOP to early Q2, 2018

Shenandoah



Depth Structure Map – Top of UW2 Sandstone

C.I. = 100' (Post Shen 4 ST1)



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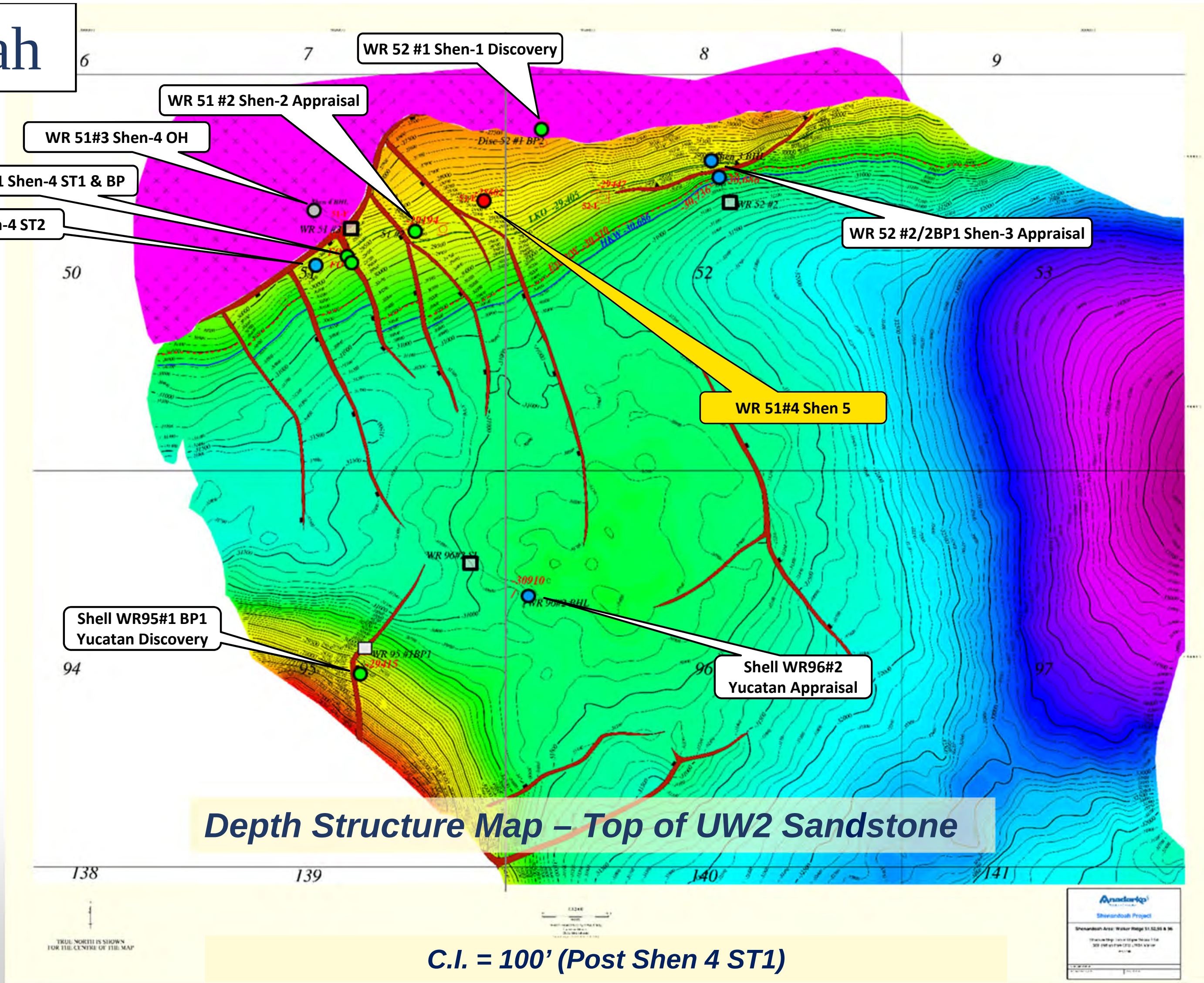
Shenandoah



Depth Structure Map – Top of UW2 Sandstone

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Shenandoah WR 51 #4 Well Recommendation

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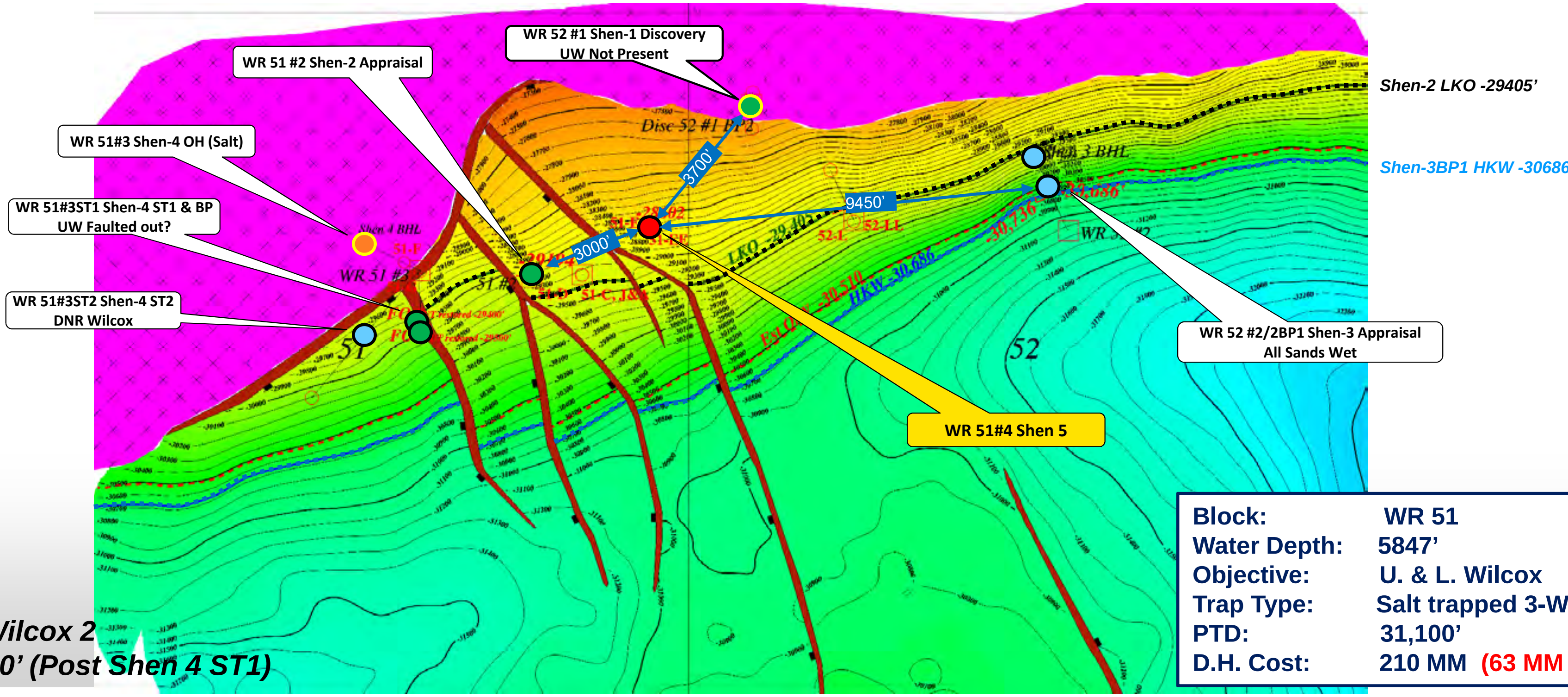
Drill 600' Updip to the Shenandoah #2 (WR 51 #2) testing the central area of the reservoir

- AFE = 210 MM Gross, APC net at 30% = 63 MM
- Shenandoah Partnership: APC=30%, COP=30%, Cobalt=20%, Marathon-10%, Venari=10%
- Well anticipated to spud by March 2016 with the Diamond BlackHawk (APC Operated)

Primary Objectives

- Extend Wilcox proven reservoirs to the east
- Confirm fault model by pressures relative to Shen 2 and Shen1
- Move project closer to a minimum economic field size for sanctioning



Upper Wilcox 2
C.I. = 100' (Post Shen 4 ST1)

Block:	WR 51
Water Depth:	5847'
Objective:	U. & L. Wilcox
Trap Type:	Salt trapped 3-Way
PTD:	31,100'
D.H. Cost:	210 MM (63 MM net)

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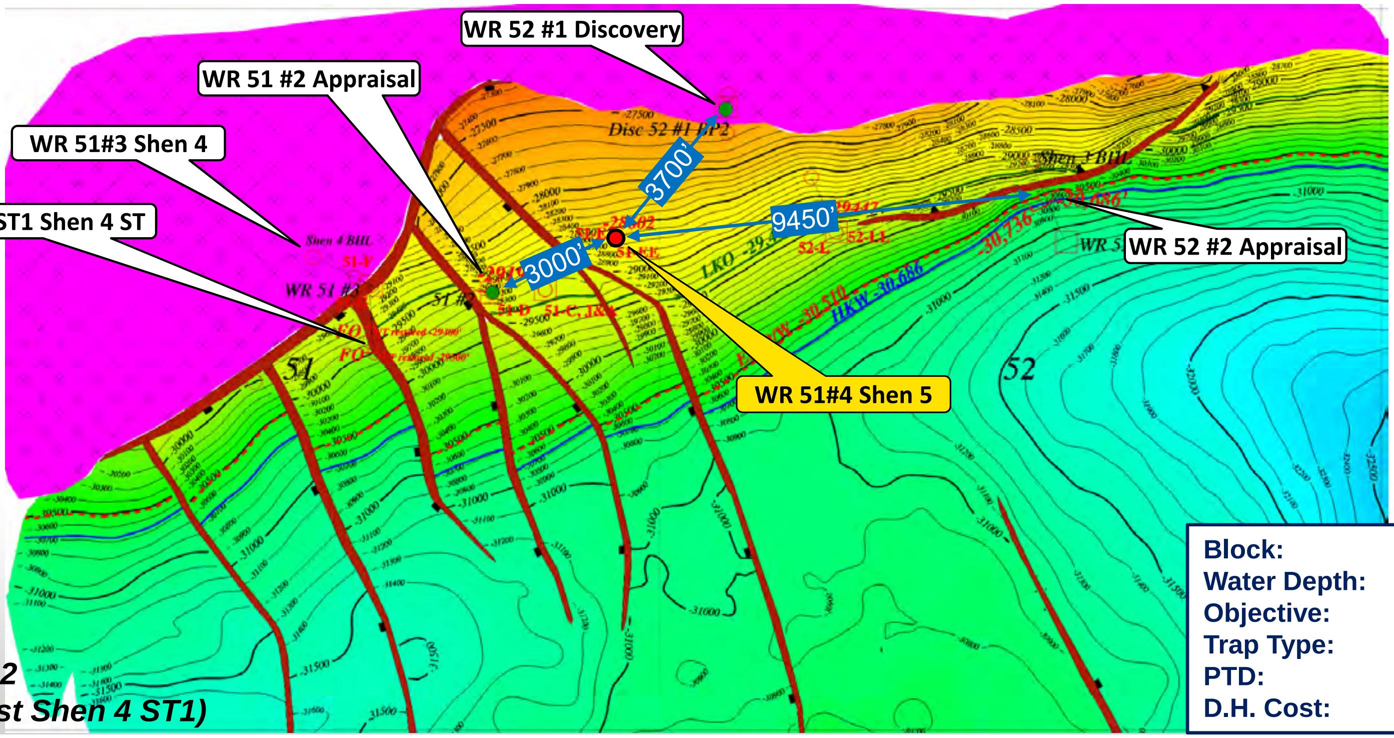

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Future Appraisal

Depth Structure Map – Top of UW2 Sandstone
Current: Post Shen4 BP1 -- Development

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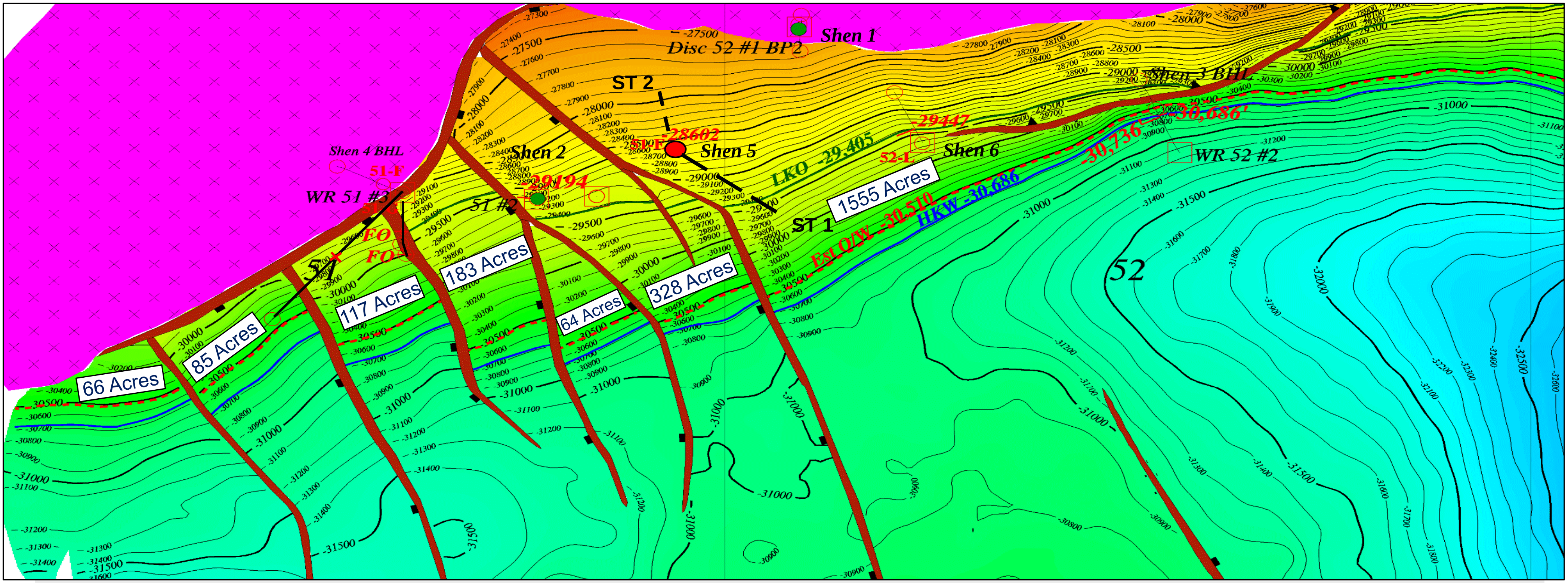
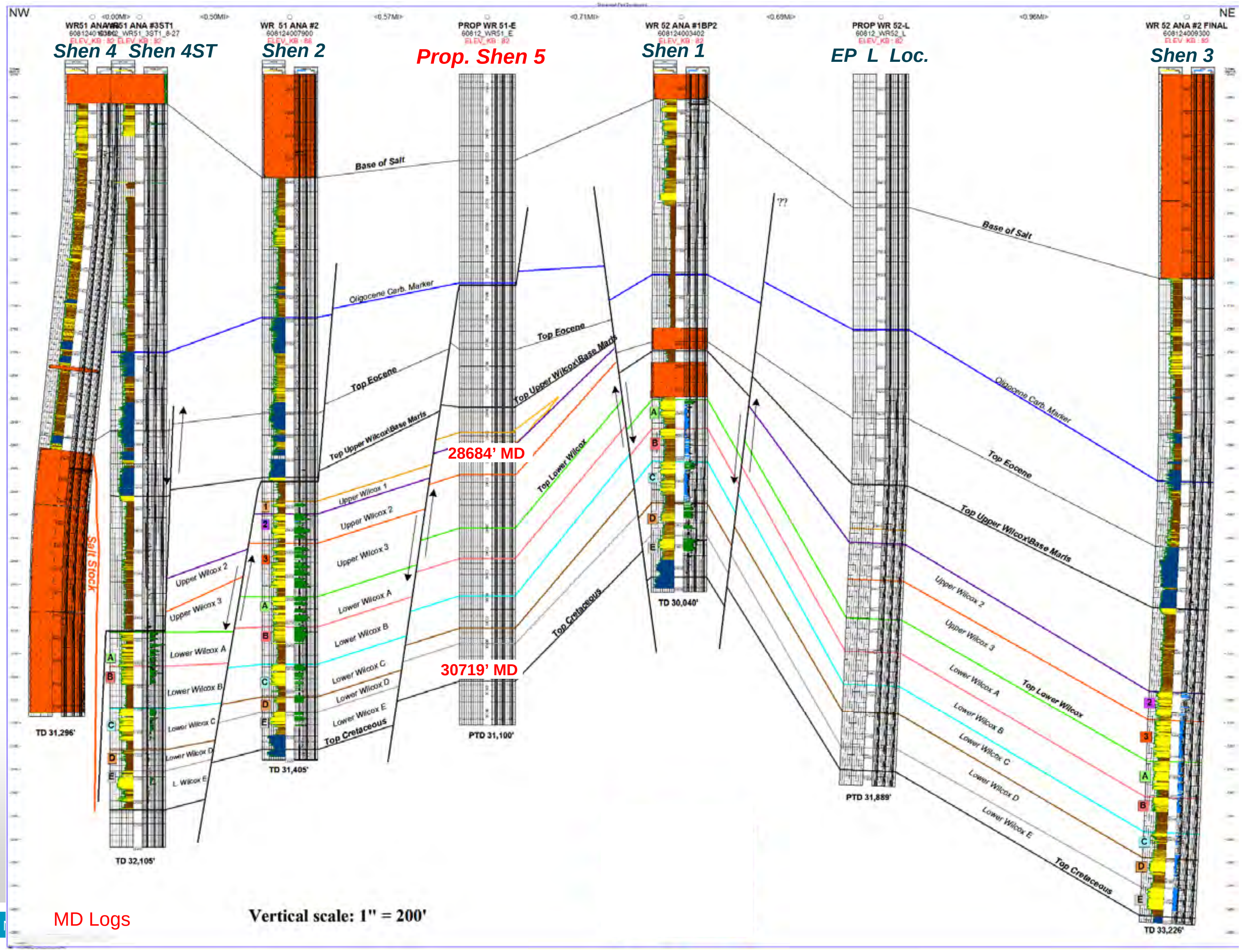
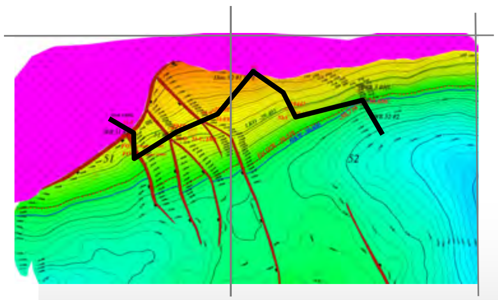
Fault Block Areal Size down to Est O/W



Structural Cross Section Across Shenandoah Field Area



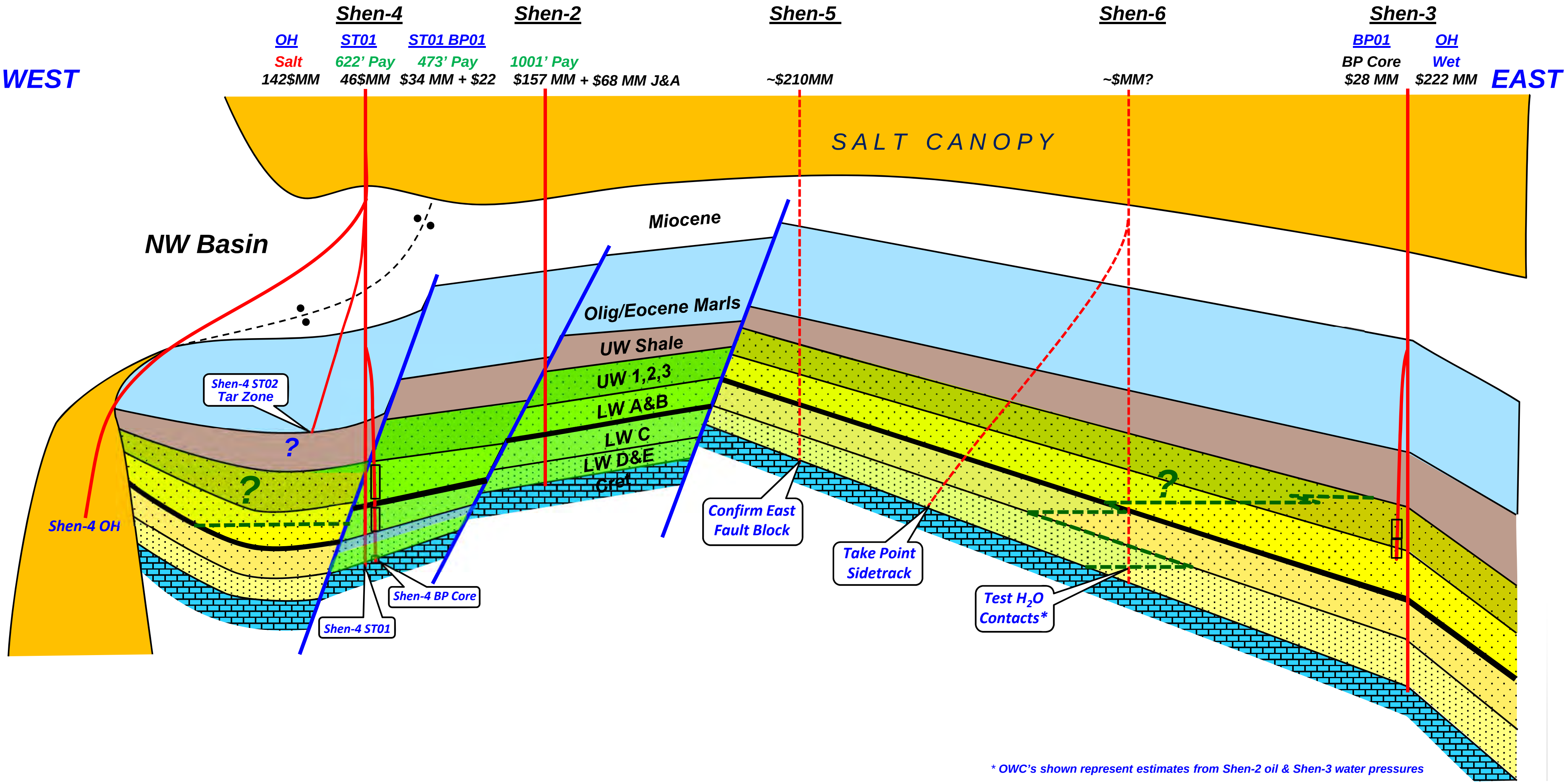
Index Map



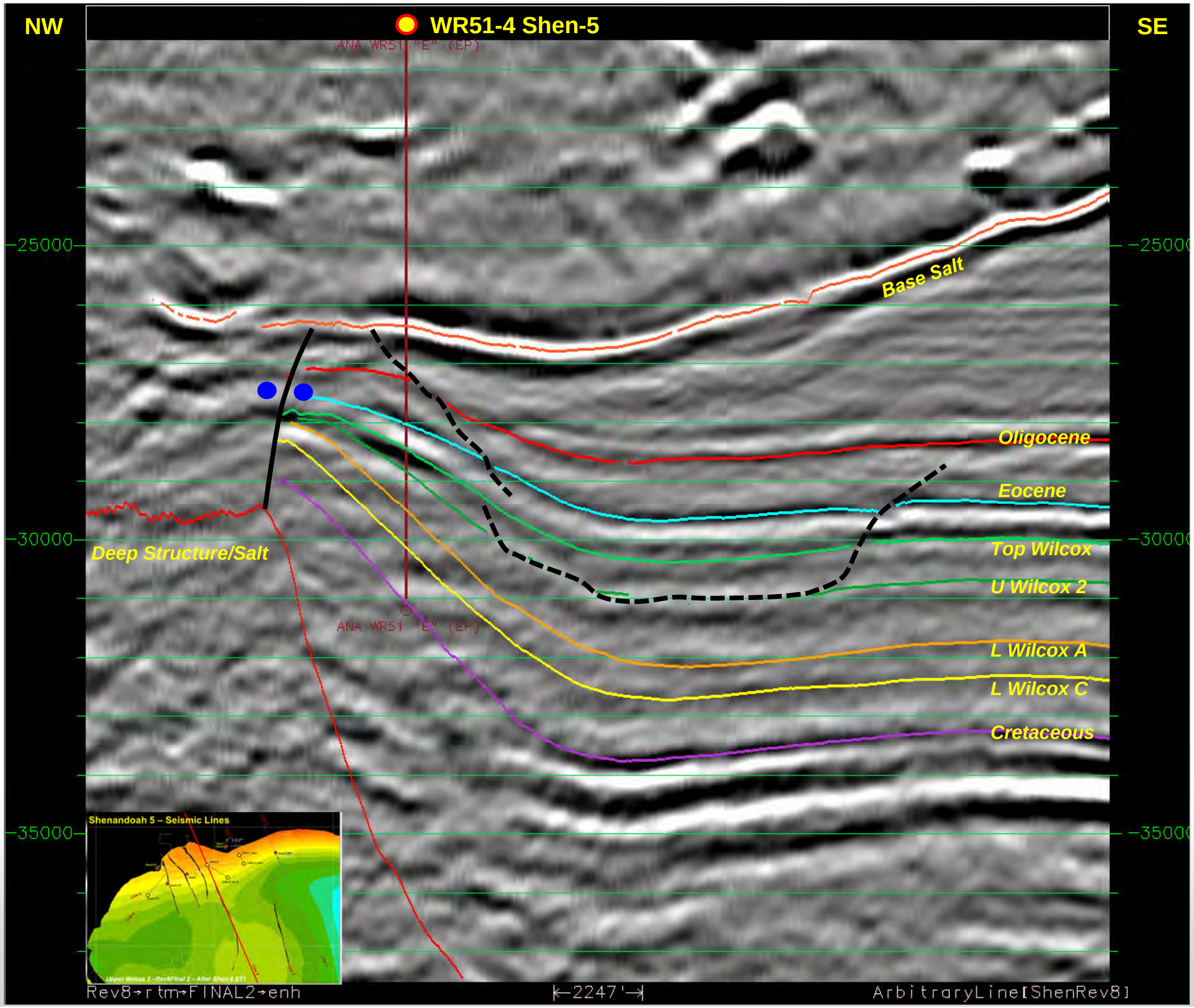
A N A D A R K O P E T R O L E U M C O R P O R A T I O N

Shenandoah Schematic Structural Cross Section

Wells are projected: Schematic Section

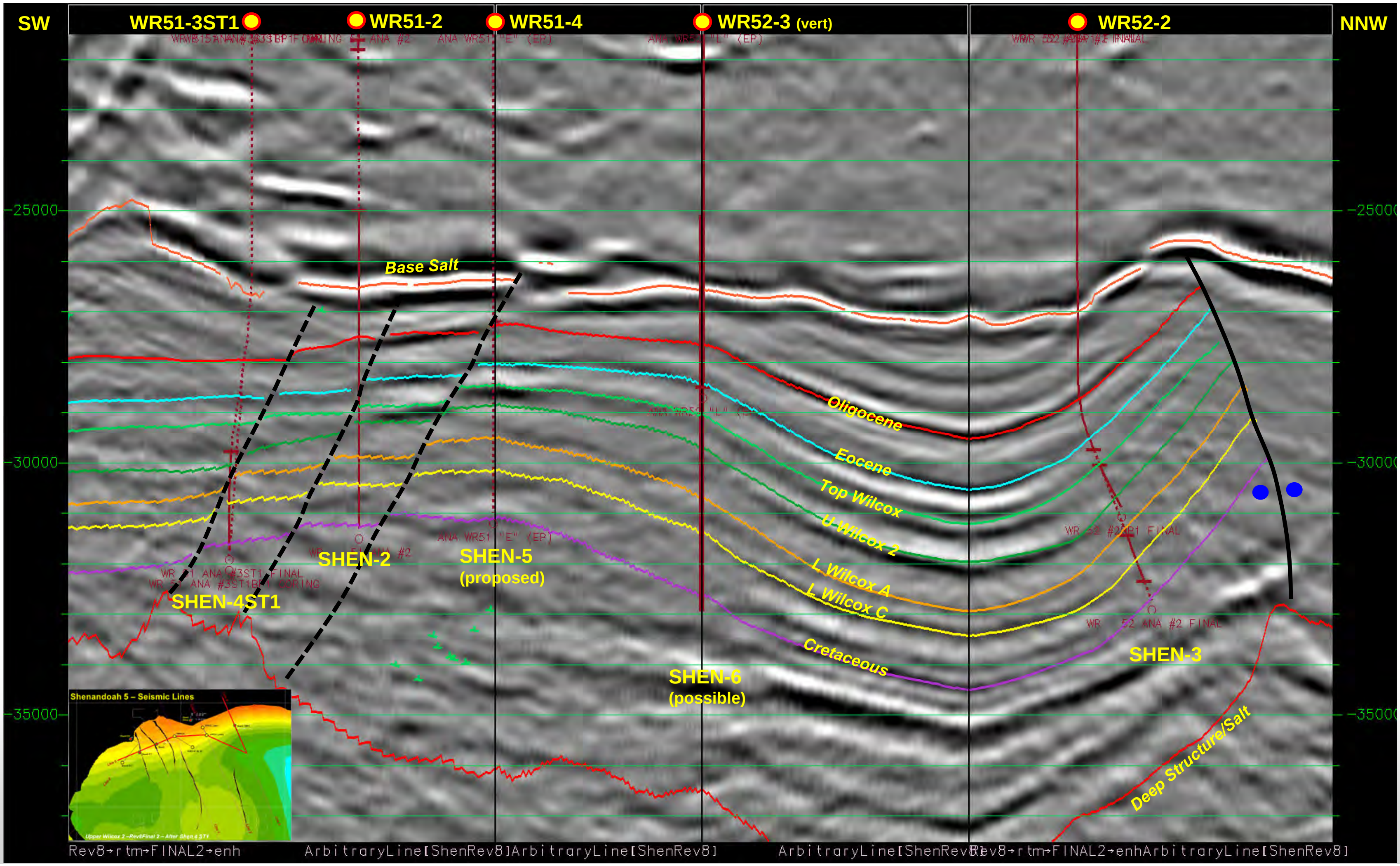


WR51-4 Shen-5 Location



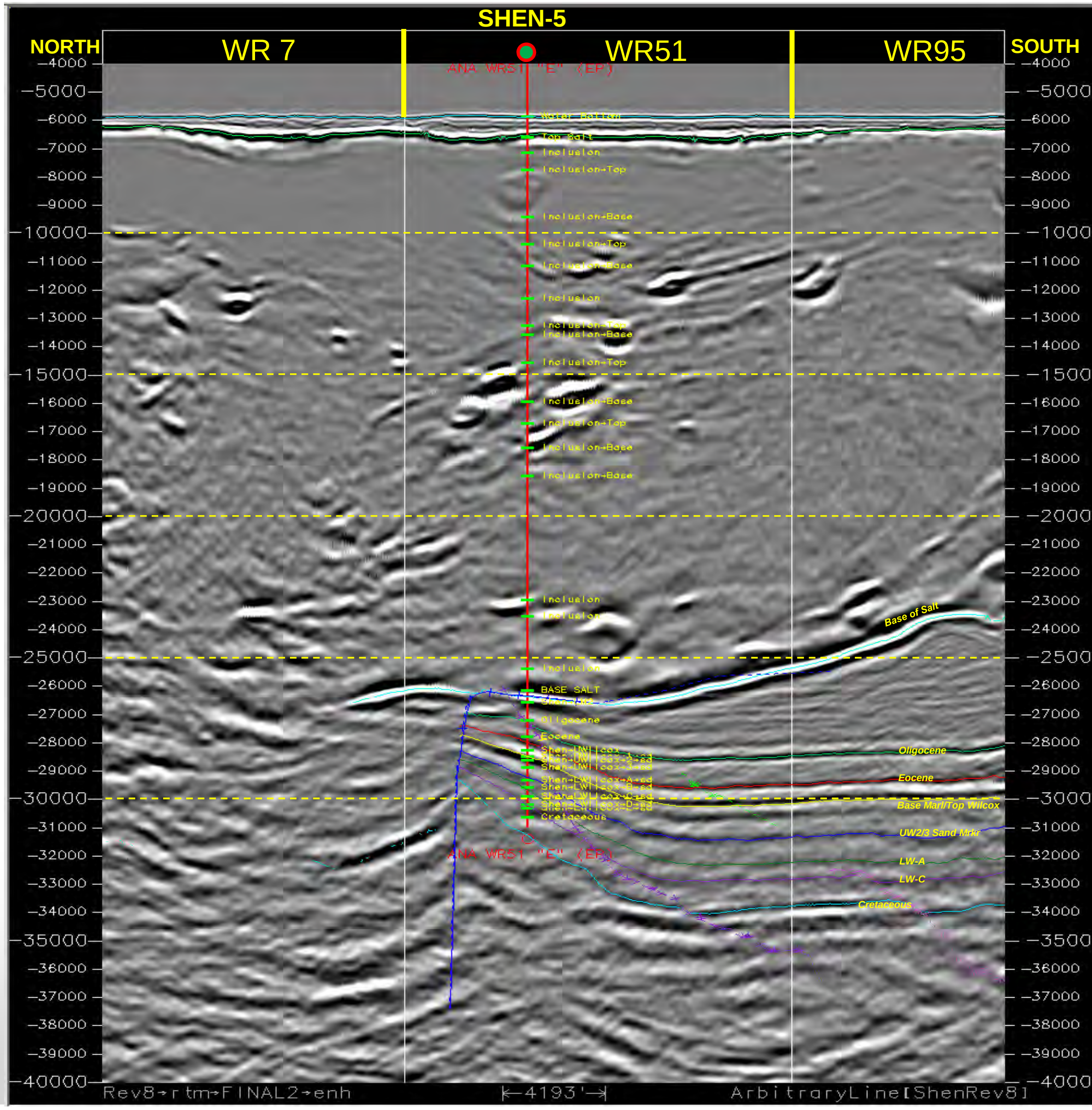
Rev8 Coil Final2 Data (Feb 2015)

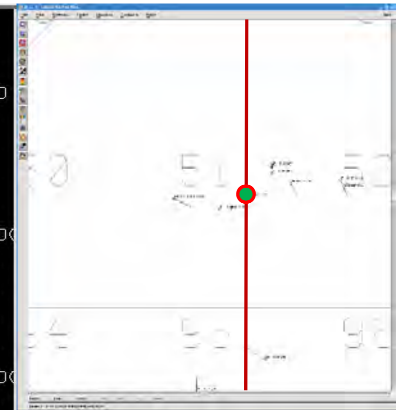
Shen-4ST1 to Shen-2 to Shen-5 to Shen-6 to Shen-3



Note that WR51-4 Shen-5 penetrates U & L Wilcox high to Shen-2 well and is fault-separated from Shen-2 and Shen-4ST1

Rev8 Coil Final2 Data (Feb 2015)

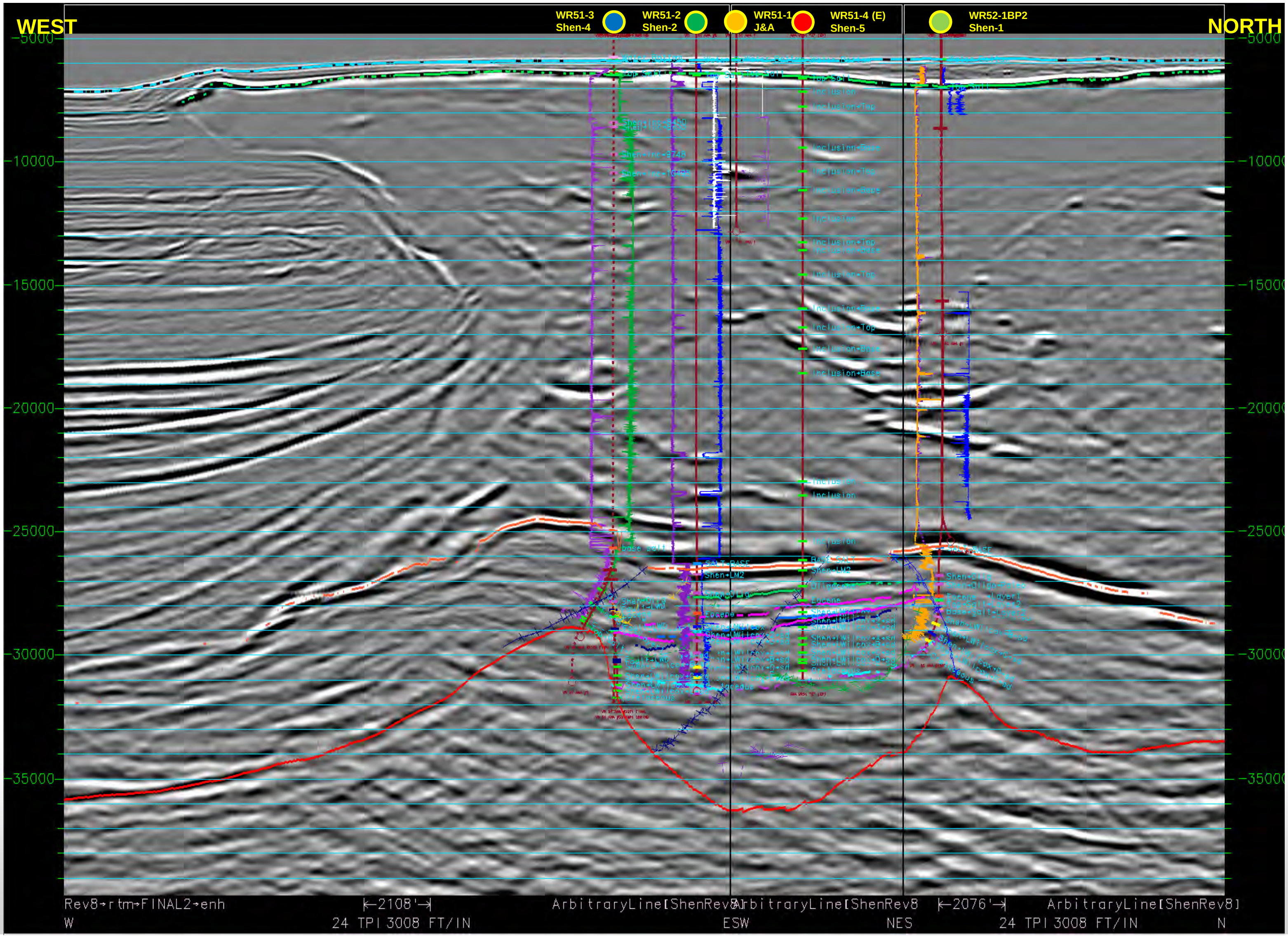




Walker Ridge 51 – Shen-5 Location
North-South Seismic Line
WGC Rev8 Coil – FINAL2 vol

CFO/PAC – APC DEV Aug. 2015

Note: Seismic horizons below Base of Salt require depth shift to match expected well penetration depths


WEST
NORTH
WR51-3 Shen-4
WR51-2 Shen-2
WR51-1 J&A
WR51-4 (E) Shen-5
WR52-1BP2 Shen-1
-5000
-10000
-15000
-20000
-25000
-30000
-35000
Rev8-rtm-FINAL2-enh
W
24 TPI 3008 FT/IN
ArbitraryLine[ShenRev8
ArbitraryLine[ShenRev8
ArbitraryLine[ShenRev8]
ESW
NES
24 TPI 3008 FT/IN
N

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Shen 5 and Forward Operations

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Shen 5 –E Location as first operation

- **Shen 5 drilled as a vertical well**
  - Establish existence of Upper & Lower Wilcox pay sands (Shen2 look-alike)
  - Determine pressure connectivity
  - Well could be used / ST'd as a keeper well
  - Would consider additional core for Upper Wilcox (interval not cored in Shen4) but would likely be a core on the fly operation (no By-Pass). This cost is not presently in the AFE.

Shen 6 – L Location as next operation

- **Shen 6 drilled as a vertical well**
  - Establish presence of water contact or extends LKO (deeper than possible with a Shen5 southeast ST
  - Extend field limits further to the east
  - Further establish proven area of reservoir for MEFS achievement
- **Shen 6 Sidetracked to the north for keeper**

WR 51E Location Analysis

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If E Location Success: Shen-2 lookalike, similar pressures

- Extend known resources updip 600’
- Improve confidence in geologic model
- MEFS not guaranteed but enhanced
- Still need to drill WR52-L, but lowered risk; WR52-L possibly fault-separated (?)

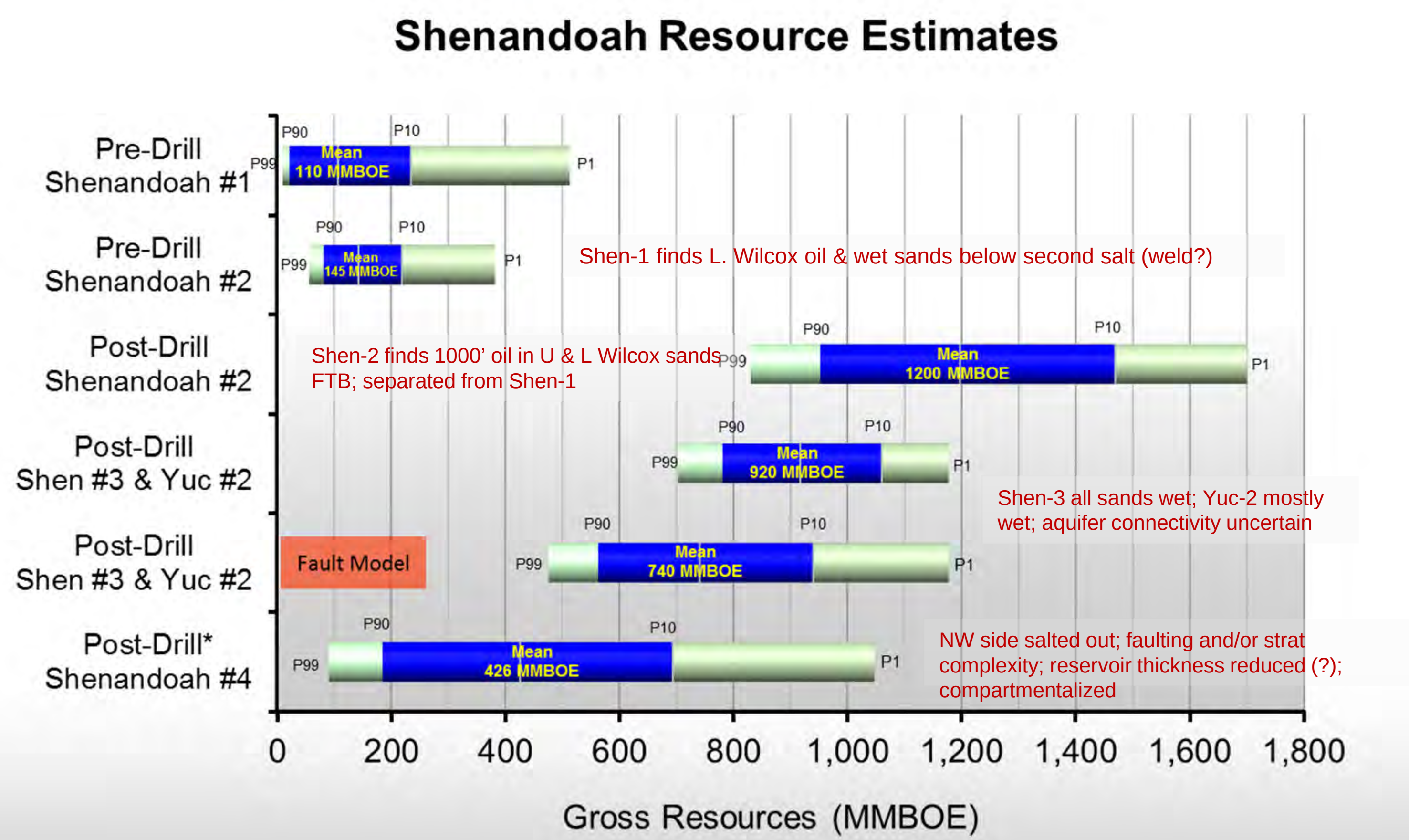
If E Location Partial Success: Different Sands, Fluids, and/or Pressures

- Connectivity to Shen-1updip and/or Shen-3?
- Extend known resources updip, compartment sizes uncertain, connectivity unknown
- MEFS still challenged; depends on fluids, connectivity
- May need to drill WR52-L to achieve MEFS, but much higher risk

If E Location Failure: wet

- Resources limited to Shen-2/Shen-4ST fault blocks
- MEFS in jeopardy; possible exit
- WR52-L probable failure

Evolution of Resources



* January 2016

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Joint Resource Estimates (Pre Drill Shen 5)

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	Un-Truncated Resources			Truncated Resources		
Recoverable Resource	Prospect Aggregate Geologic			Prospect Aggregate Commercial		
Thresholds	Zone and Prospect level thresholds NEVER applied.			Zone Thresholds disabled. Prospect Threshold applied (167 MMBO / 200 BCF)		
Product	Liquids	Gas	Equivalent	Liquids	Gas	Equivalent
Units	MMBO	BCF	MMBOE	MMBO	BCF	MMBOE
P99	75.955	90.244	90.996	173.506	204.656	207.618
P90	154.764	182.451	185.174	220.041	259.194	263.249
Mode	266.331	312.598	318.345	264.686	310.755	316.433
P50	340.220	400.443	406.948	362.517	426.457	433.584
Mean (P99->P01)*	356.635	418.990	426.467	385.685	453.015	461.188
P10	580.335	679.648	693.582	599.641	701.484	716.549
P01	876.075	1,022.584	1,046.506	891.432	1,040.218	1,064.798
Chance	NA	NA	100.0%	NA	NA	88.2%

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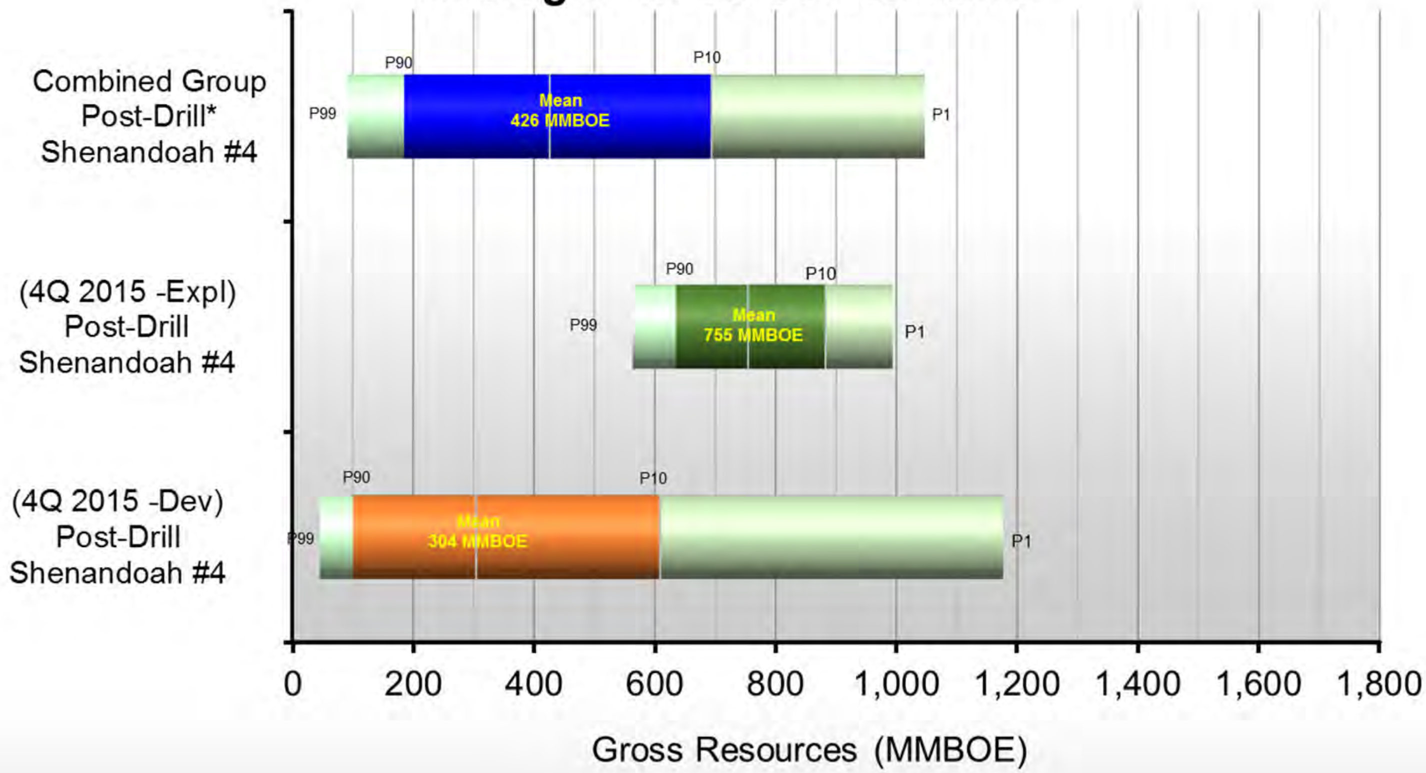
Shenandoah Un-Risked Geologic Resource Estimates



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MMRA Inputs

Untruncated

	Productive Area (acres)	Average Net Pay (feet)	Calculated Oil Yield (bbls / ac-ft)	Result OIIP (MMBO)	Result EUR (MMBOE)
P99	467	377	61	255	45
P90	800	500	107	461	100
P50	1549	707	193	974	247
Mean	1739	726	202	1143	304
P10	3000	1000	314	2102	609
P01	5142	1327	432	3838	1177

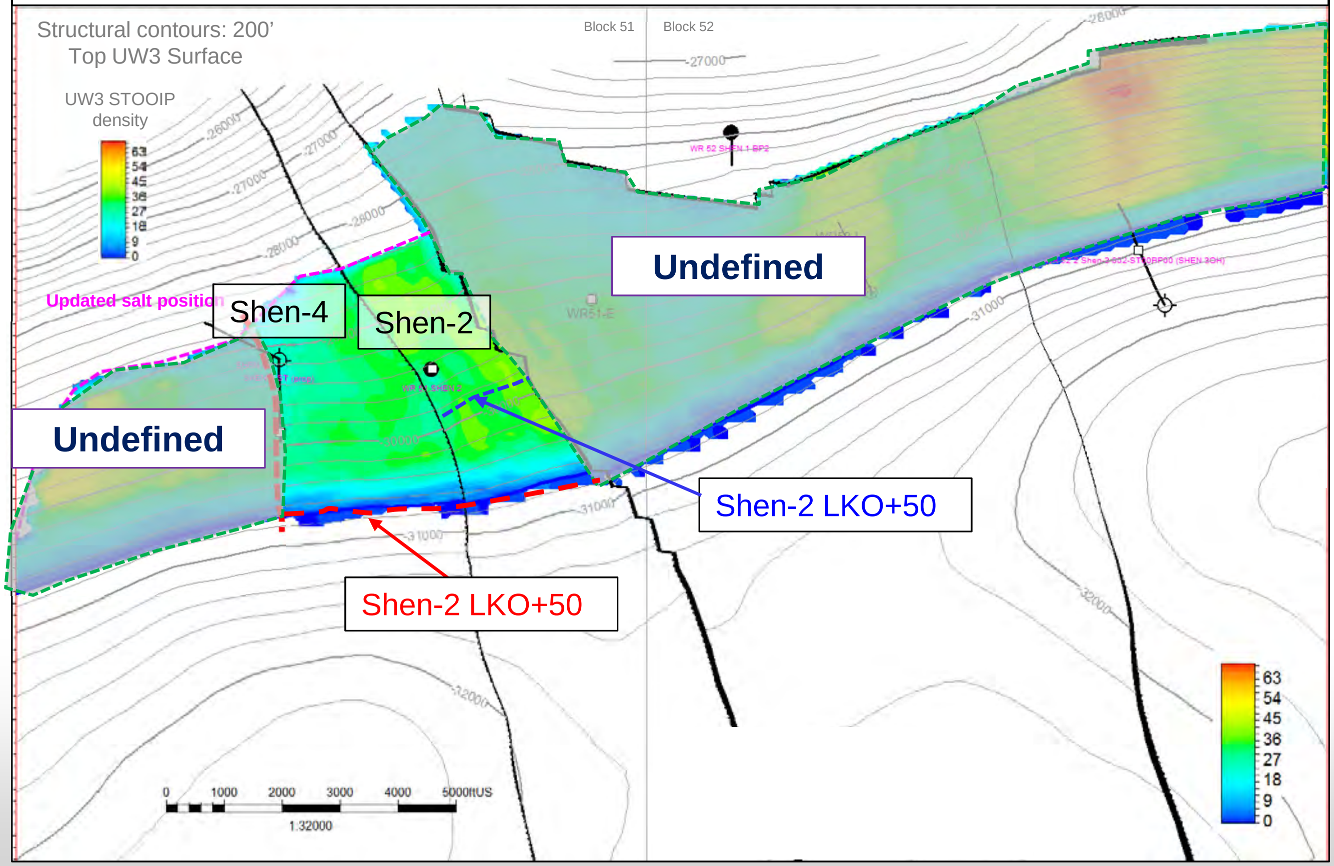
Deterministic Checks

	Average Porosity (%)	Average Sw (%)	Recovery Factor (%)	FVF (rbbl/stb)	GOR (scf/stb)
P99	18	36	8	1.1	872
P90	19	30	14	1.2	1000
P50	21	23	22	1.4	1183
Mean	21	23	22	1.4	1193
P10	23	16	30	1.6	1400
P01	24	13	37	1.7	1606

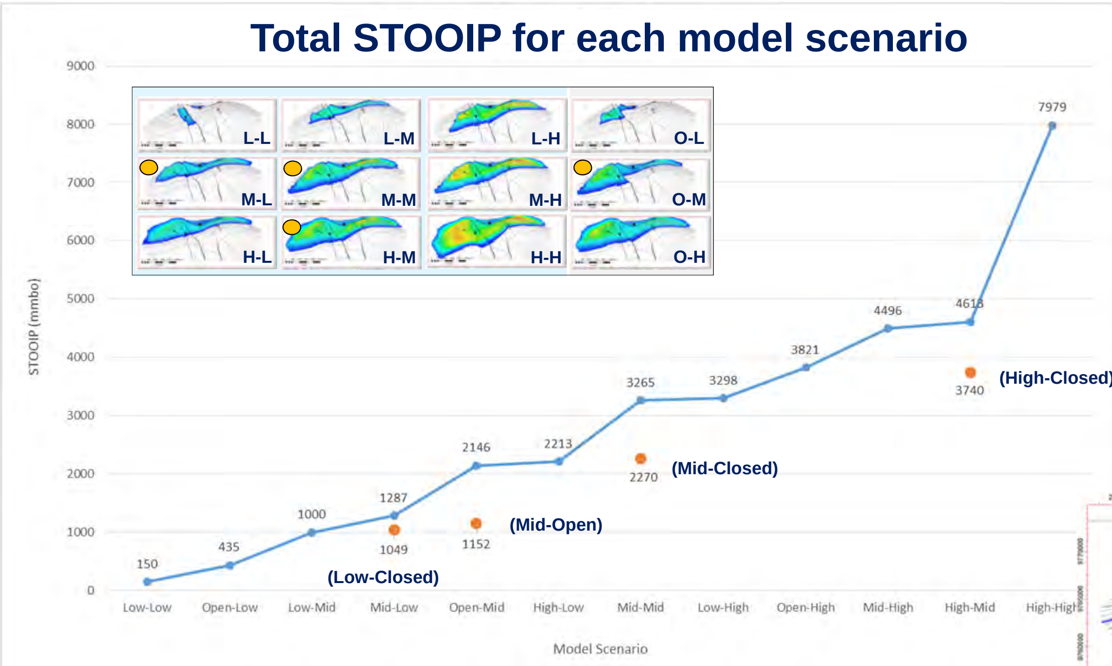
High Confidence Resources

Modeled Contact	STOOIP MMBO
LKO+50	202
Proj. OWC	541

Mid-case STOOIP distribution (Pre Shen-4 ST1)

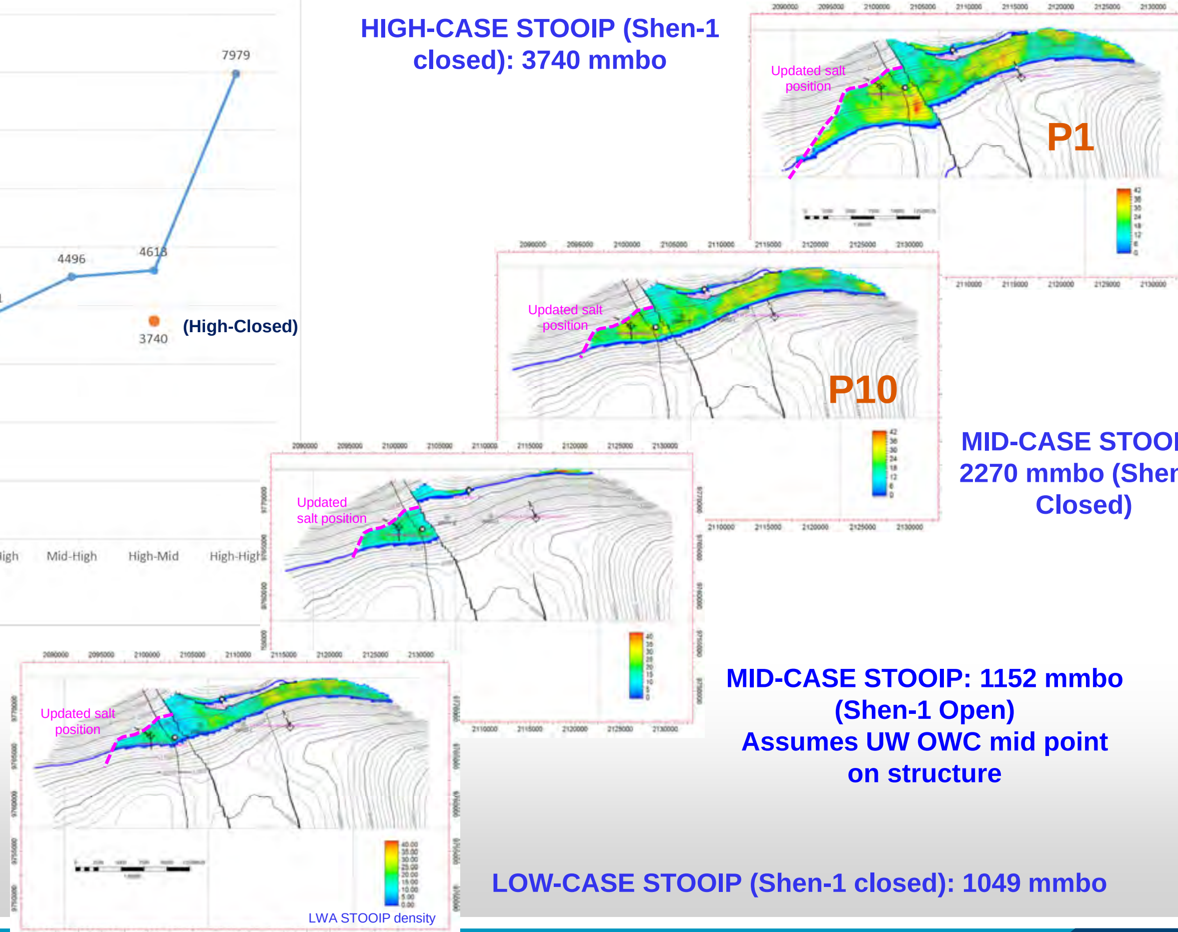


Volumetric Update: Model Matrix STOOIP (pre & post Shen-4)



Models with updated salt position (post Shen-4)

HIGH-CASE STOOIP (Shen-1 closed): 3740 mmbo



MID-CASE STOOIP: 2270 mmbo (Shen-1 Closed)

MID-CASE STOOIP: 1152 mmbo (Shen-1 Open) Assumes UW OWC mid point on structure

LOW-CASE STOOIP (Shen-1 closed): 1049 mmbo

Rig Rates

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Project Phase	Well Operation	Low Case	High Case	Rig Type	Old Base Case
Phase 1	Drill Shen #5	Current Blackhawk rate	Current Blackhawk rate	15K	Blackhawk
Phase 1	Drill Shen #6	Current Blackhawk rate	Current Blackhawk rate	15K	Blackhawk
Phase 1	Drill Shen #7	$250,000 / day	Current Blackhawk rate	15K	Blackhawk
Phase 1	Drill Shen #8	$250,000 / day	Current Blackhawk rate	15K	Blackhawk
Phase 1	Complete #5	$350,000 / day	$450,000 / day	20K	$600,000 / day
Phase 1	Complete #6	$350,000 / day	$450,000 / day	20K	$600,000 / day
Phase 1	Complete #7	$350,000 / day	$450,000 / day	20K	$600,000 / day
Phase 1	Complete #8	$350,000 / day	$450,000 / day	20K	$600,000 / day
Phase 2	Drill & Complete (6 wells)	$350,000 / day	$450,000 / day	20K	$600,000 / day

Completion Costs

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ZERO PERCENT NPT / CONTINGENCIES (P10)		
COMPLETION OPERATION	DAYS	COST ($)
CASE & PERF	43.5	64,617,300
CASE & PERF WITH IWS	**45.5**	**70,075,000**
TWO ZONE SAND CONTROL	53.5	79,093,600
TWO ZONE SAND CONTROL WITH IWS	55.5	83,301,400
15 PERCENT NPT / CONTINGENCIES (P50)		
COMPLETION OPERATION	DAYS	COST
CASE & PERF	51.2	75,851,300
CASE & PERF WITH IWS	53.5	78,687,600
TWO ZONE SAND CONTROL	62.9	89,220,500
TWO ZONE SAND CONTROL WITH IWS	65.3	93,806,800
35 PERCENT NPT / CONTINGENCIES (P90)		
COMPLETION OPERATION	DAYS	COST
CASE & PERF	66.9	89,741,600
CASE & PERF WITH IWS	**70.0**	**96,354,500**
TWO ZONE SAND CONTROL	82.3	109,993,600
TWO ZONE SAND CONTROL WITH IWS	85.4	115,356,500

Facility Cost Estimates (Spar)

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Phase 1 Costs

Host Facility, 4 Well Subsea Tieback (2 Risers + 1 Umbilical)

P01	P10	P50-P75
No Weather Downtime, 0% Contingency	8% Contingency on offshore HUC and Install to account for weather downtime	18% Contingency
$2,135 MM • $60 Invest	$2,171 MM • $60 Invest	$2,510 MM • $60 Invest
$2,348 MM • $80 Upside	$2,388 MM • $80 Upside	$2,761 • $80 Upside

Phase 2 Costs

6 Well Subsea Tieback (2 Risers + 1 Umbilical)

No updates due to uncertainty around final design and timing

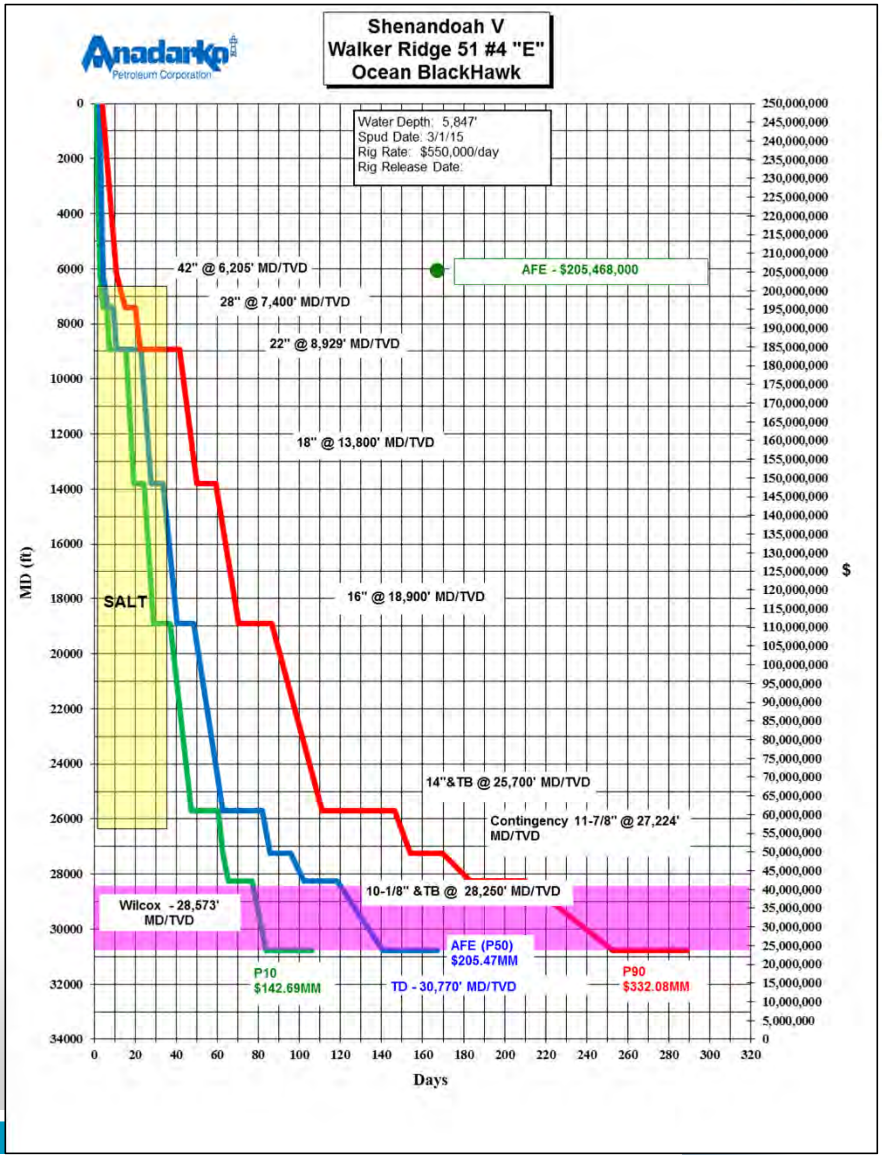
$625 MM
(No Contingency)

$700 MM
(With Contingency)

Notes:
- $60 Price Deck assumes sub-$50 oil market
- $80 Price Deck assumes $50-$70 oil market, and a 10% increase on all facilities costs

Drilling Assumptions

- **Keeper Wells:** Shen 5 and Shen 6
- **Spread Rate:** 10% Reduction
- **Drill Days:**
- Shen 5 → 167 days includes contingency liner
  Cost $205MM (Black Hawk Rate)
- Shen 6 → 120 days removed contingency liner and extra evaluation days and added production casing
  Cost $ 133MM (Black Hawk Rate)
- Shen 7+ → 120 days removed contingency liner and extra evaluation days and added production casing
  Cost $102 - $114MM (Lower Rig Rates)



Economic Value Drivers (Comparison)

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	Recommended Case	Old Base Case
Average D&C Costs	$190 MM/Well	$300 MM/Well
Facilities Phase I & II	$3.2 B	$3.3 B
Risked Ecos P_c	88.2%	61.5%
Intervention Costs (P50)	$0.8 B	$2.4 B

Rig Rate alone would cut per well costs by 25%
Incremental well cost savings due to reduced days and spread rates

Largest Cost Uncertainty: Remains in this category as drilling design still evolving and final completion design not defined

Stand-alone Development Assumptions

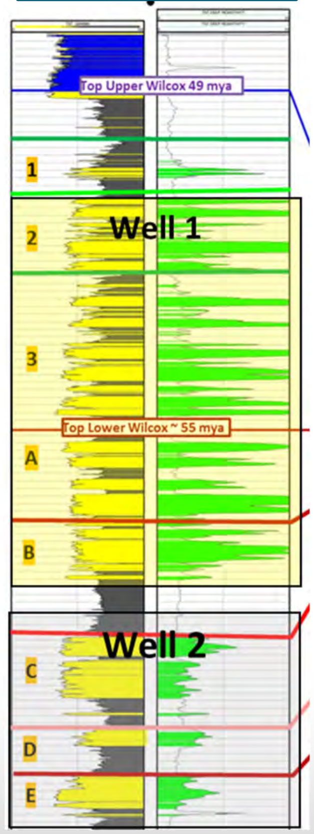
Assumptions

- **30 Year Field Life (well life 25 yrs.)**
- **1st Oil July 2021**
- **Facility (Spar):**
  - Oil Production: 100K BOPD
  - Gas Production: 120 MMCFD
  - Water Production: 100K BWPD
  - Liquid Production: 120K BLP

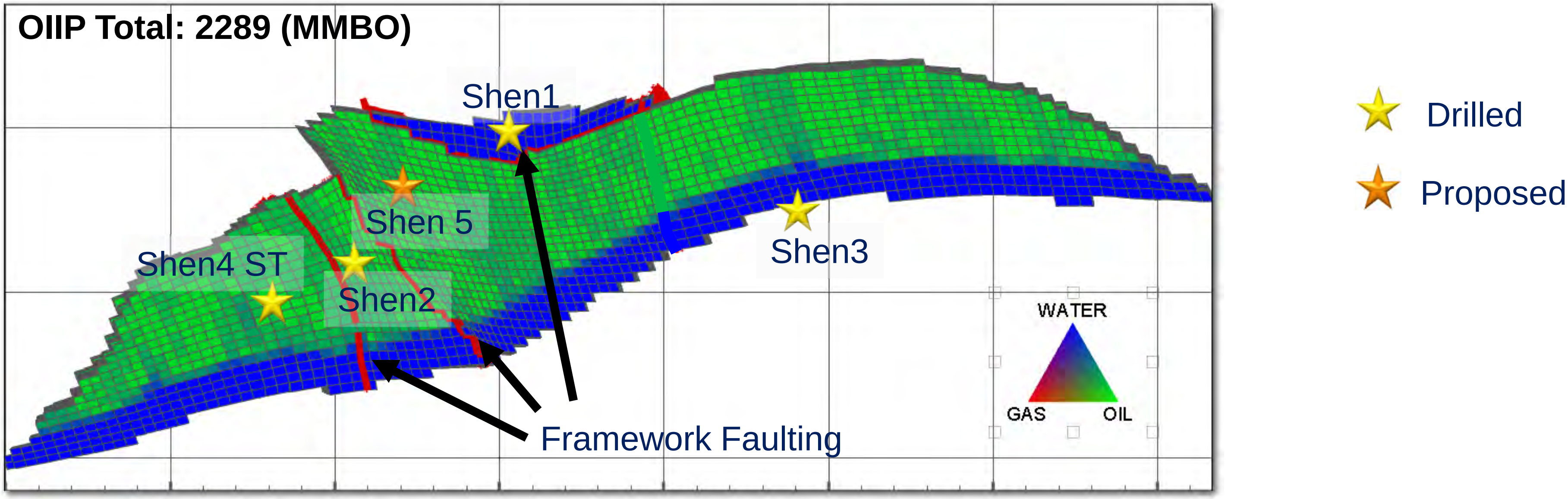
Targeted Zones Phased Development:

- **Phase 1: (all cases)**
  - 4 wells and one flow loop
- **Phase 2: (P50 and P10 only)**
  - 6 additional wells and another flow loop (10 wells total)
- **No Injection**
- **Uptime = 95%**

Targeted Zones

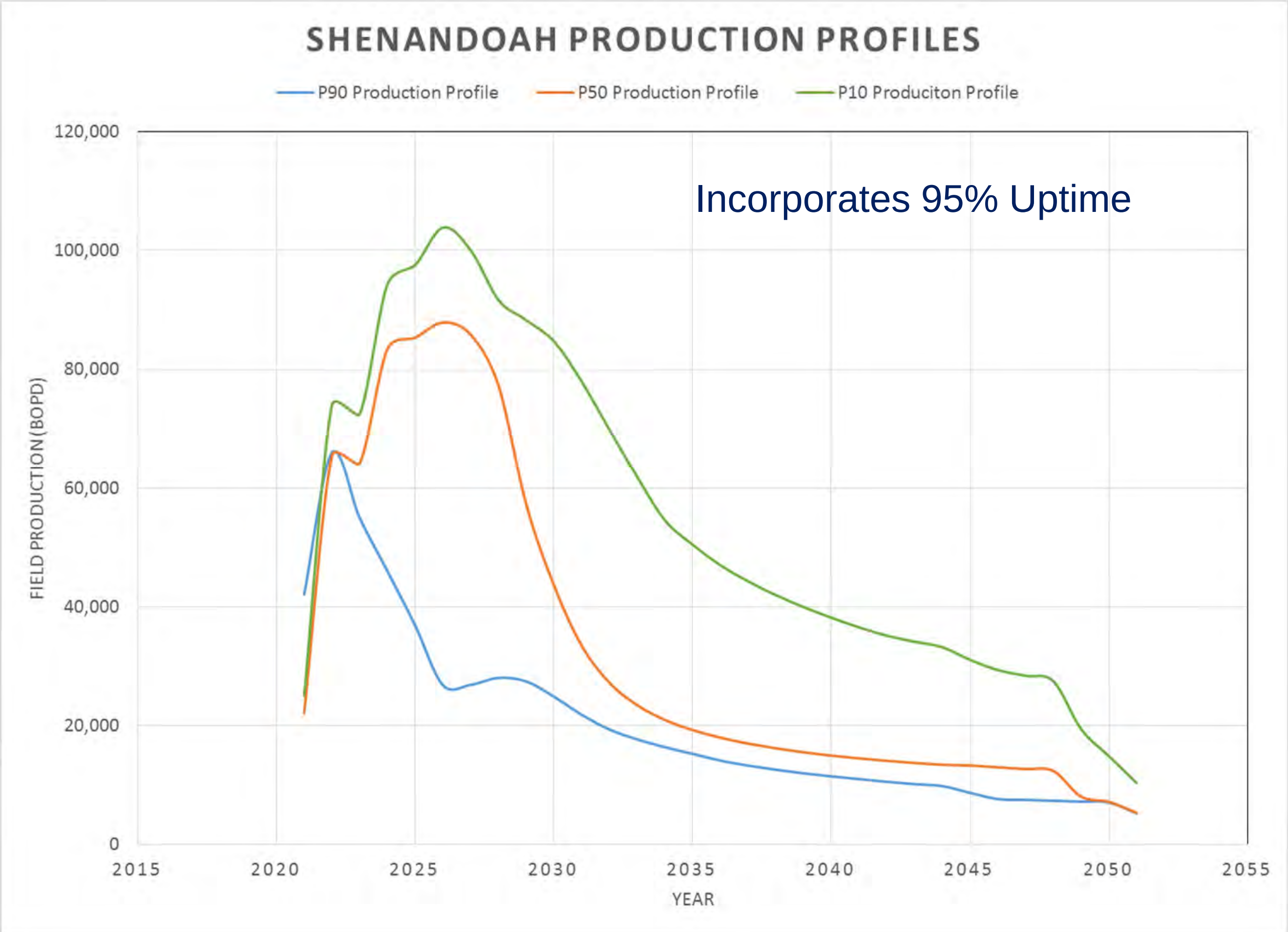


Dynamic Model Framework



- **All faults assumed to being sealing**
- **Assumes Upper Wilcox present everywhere**
- **OWC assumes projected contacts from Shen2 to Shen3 across entire field**
- **Known: Shen1 not connected to Shen2**
- **Known: Shen4 not connected to Shen2**

Production Profiles and Descriptions



Description:

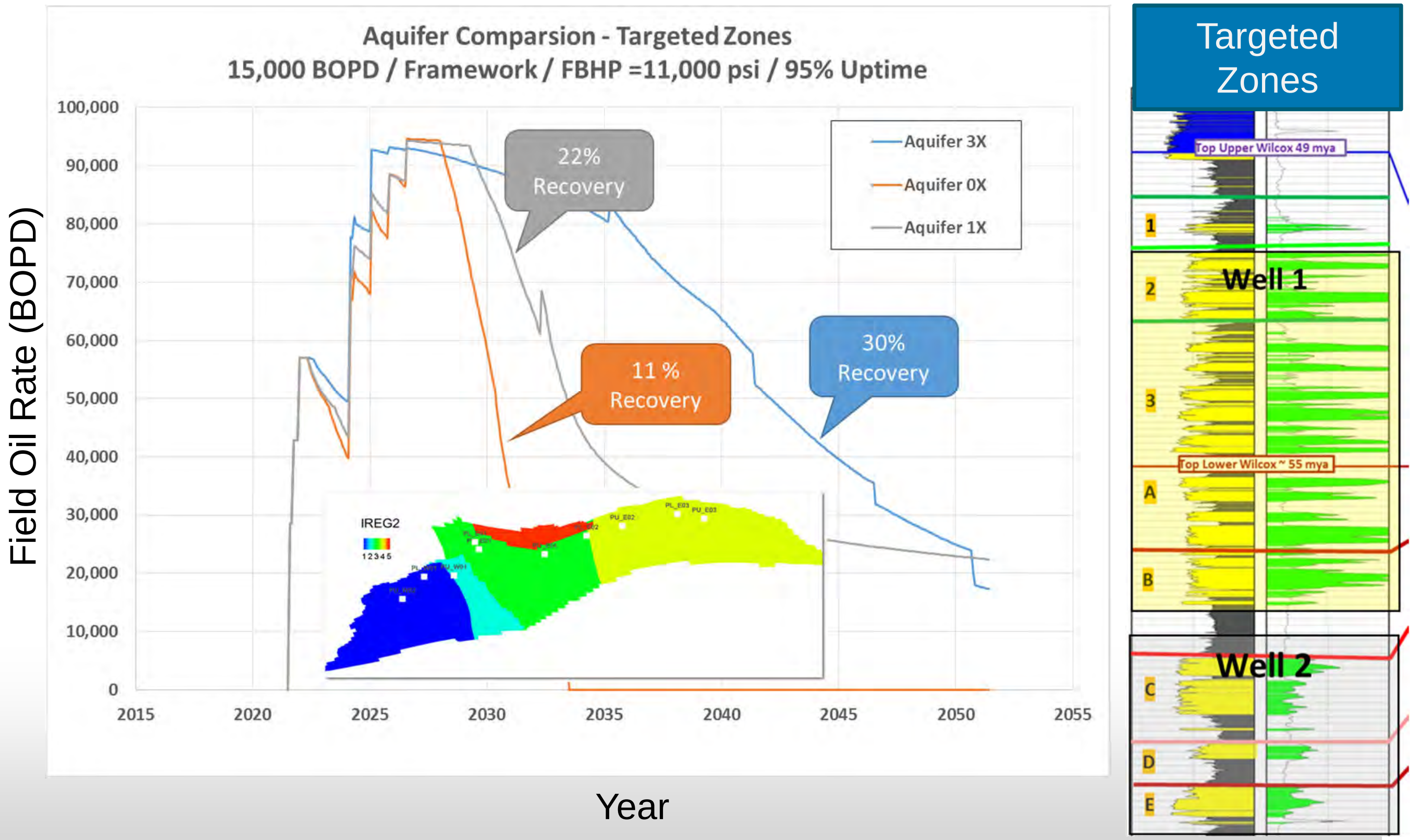
- **Truncated P10 Resource:**
  - EUR: 717 MMBOE
  - Aquifer: Strong
  - Compartmentalization: Minimal
  - RF: 31%

- **Truncated P50 Resource:**
  - EUR: 434 MMBOE
  - Aquifer: Moderate
  - Compartmentalization: Minimal
  - RF: 19%

- **Truncated P90 Resource:**
  - EUR: 263 MMBOE
  - Aquifer: Weak
  - Compartmentalized
  - RF: 16% (UW2- LWB Only)

Dynamic Simulation: Assumptions

- **30 Year Field Life**
- **1st Oil July 2021**
- **Shen 2 Fluids and Projected Contacts**
- **Simplified Network Model**
  - Two flow loops
  - 60% water cut
- **Well Limits**
  - Drawdown = 2000 psi
  - FBHP = 11,000 psi
  - Rate = 15,000 BOPD
- **Uptime = 95%**
- **No PI Degradation Applied**



Facility Constraints (Targeted Zones) & Phasing

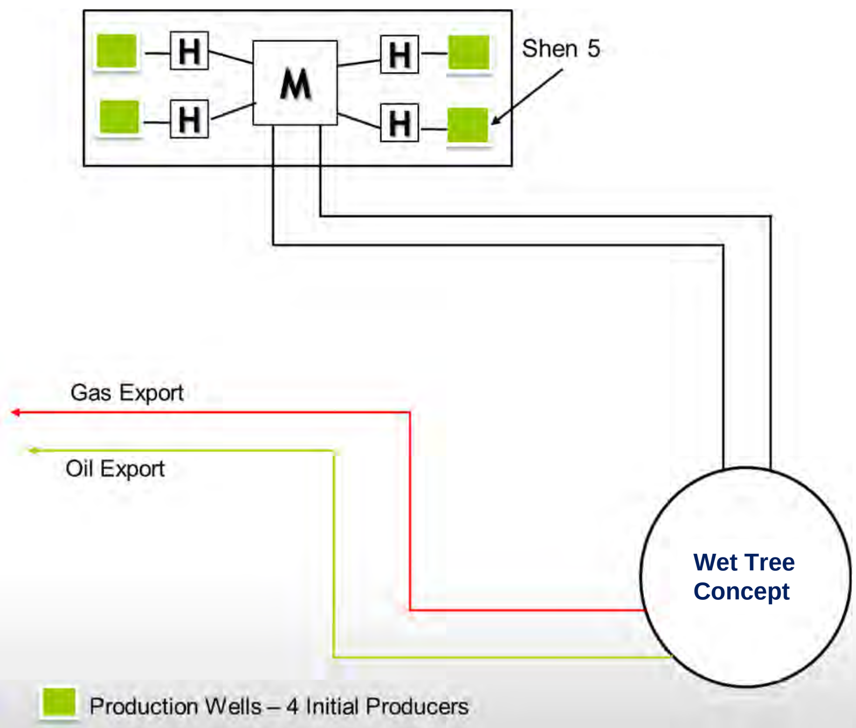
- **Oil Production:** 100K BOPD
- **Gas Production:** 120 MMCFD
- **Water Production:** 100K BWPD
- **Max Liquid Rate per 7.5" Flowline:** 40K BLPD
- **Minimum Liquid Rate per Riser:** 5,000 BLPD

- **Phase I:**
  - 4 producers
  - 1st oil 7/2021: 2 producers
  - 1st completion 1/2021 (20K MODU ready 1/2021)

- **Phase II:**
  - 6 producers (10 total)
  - 1st Oil: 2/2024
    - *12 months post final completion in Phase I to commit*

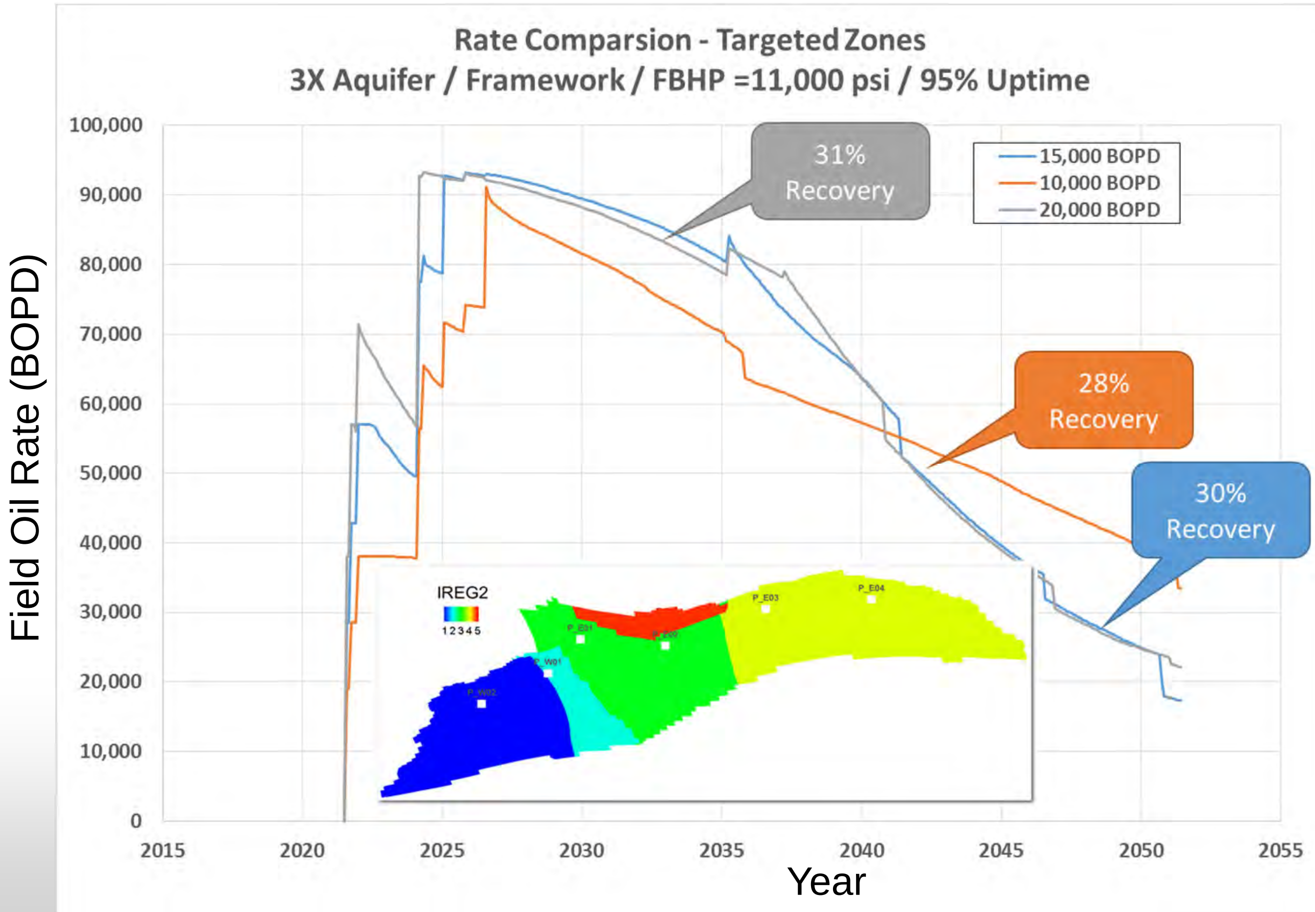
Phase I: Wet Tree (Semi or Spar)

100 MBOPD



Dynamic Simulation: Well Rate Constraint Impact

- Examined 3 rates
- Base case= 15,000 BOPD
- Erosional velocity (C-factor) is completion design driven
- Higher Rates Will Increase NPV10
- Not all wells created equal
- Peak rate will be limited by phasing
- Phasing recommended → well testing not possible



Dynamic Simulation: Compartmentalization Impact

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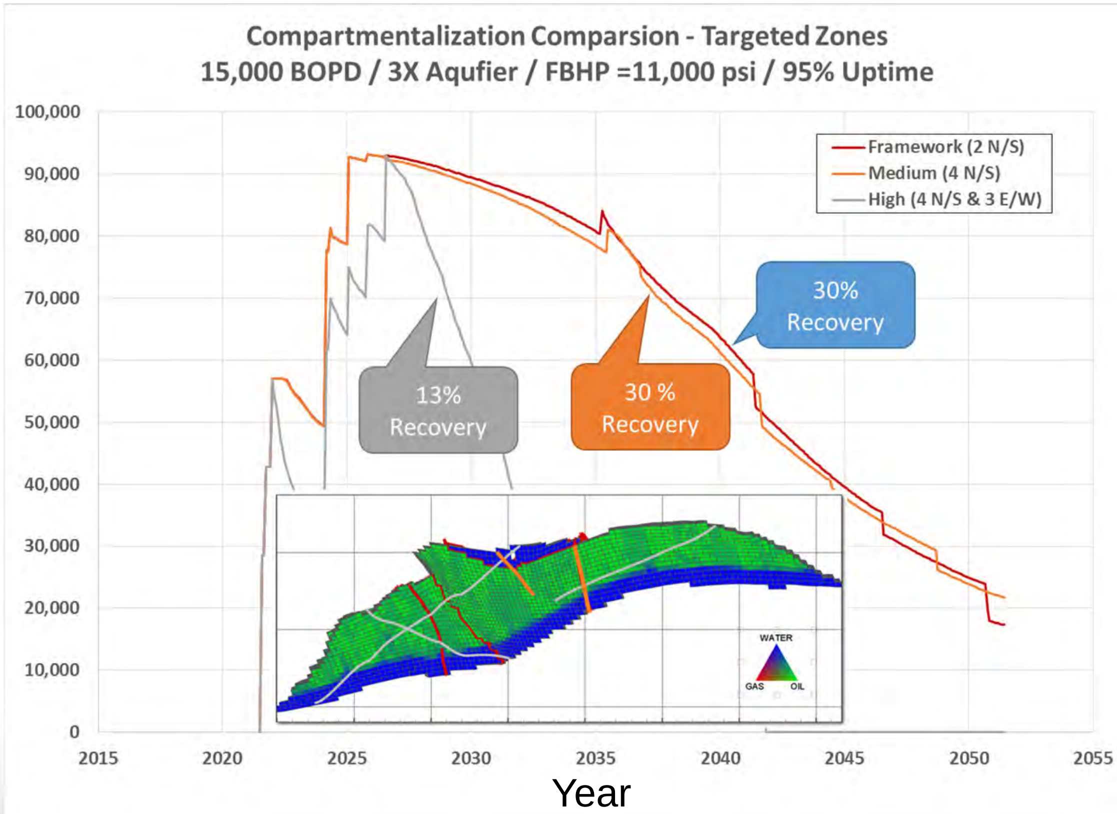
- **Lots of uncertainty in faulting picture at current time**
- **North/South Faulting**
  - Evidence of some faulting
  - Minimal impact in recovery if wells placed correctly
  - More N/S compartments = More wells
  - Limited to no Aquifer = More Injection Wells
- **East/West Faulting**
  - Faulting based upon conglomeration of partner interpretations from previous structural/stratigraphic workshops
  - Larger impact on recovery due to disconnection to aquifer
  - Makes placing injection wells tricky → may preclude benefit of injection



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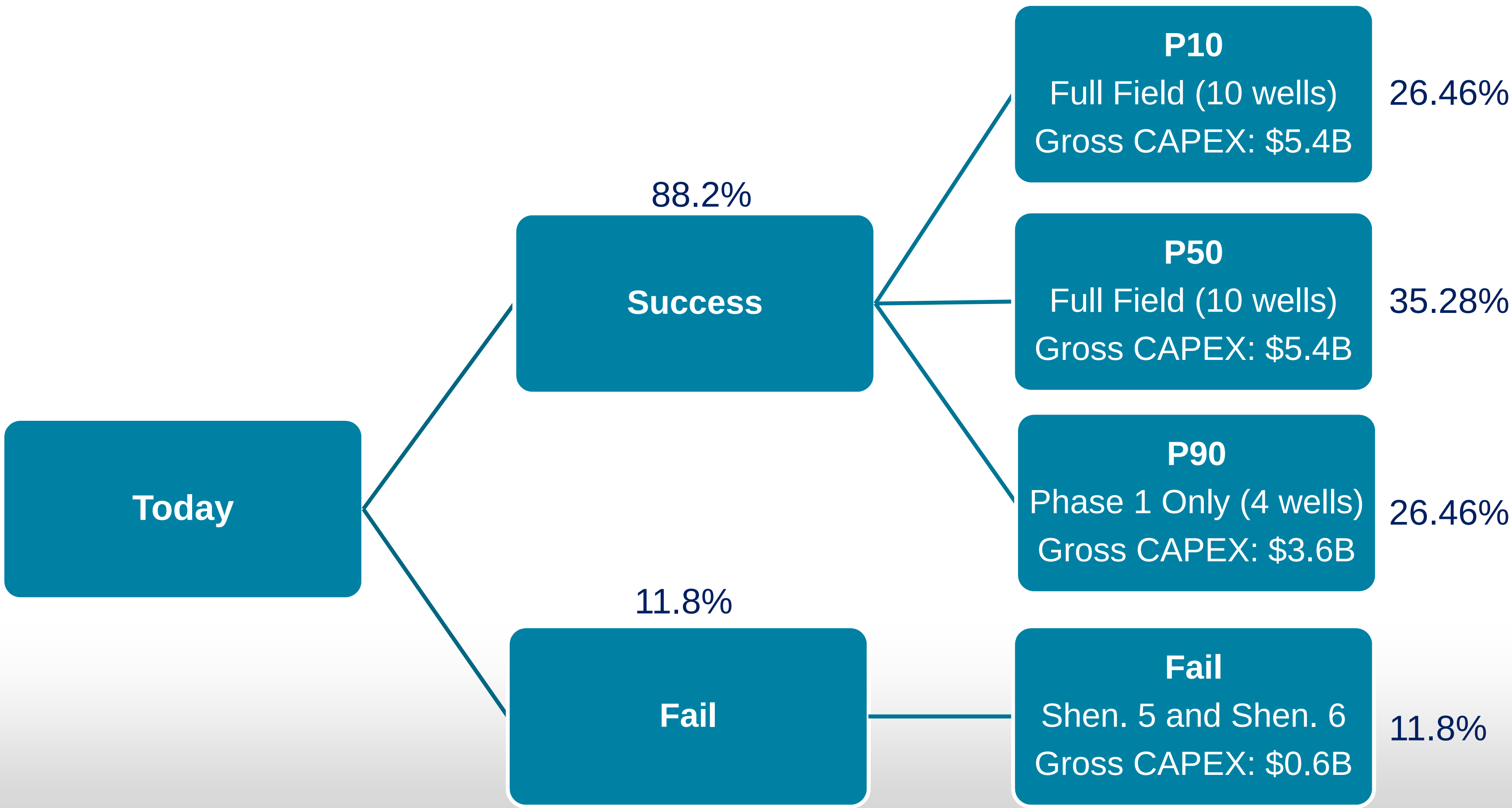
Decision Tree (100 MPOD Spar No Injection)



Capital Summary

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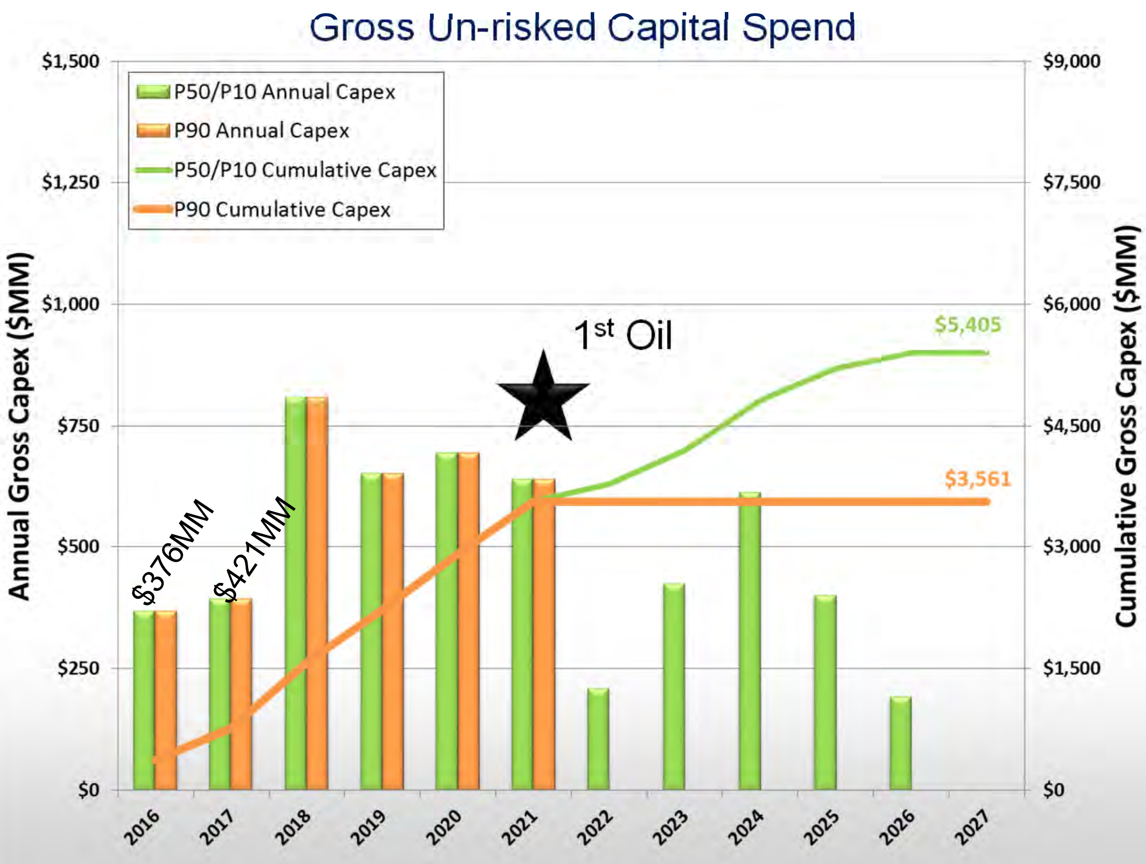

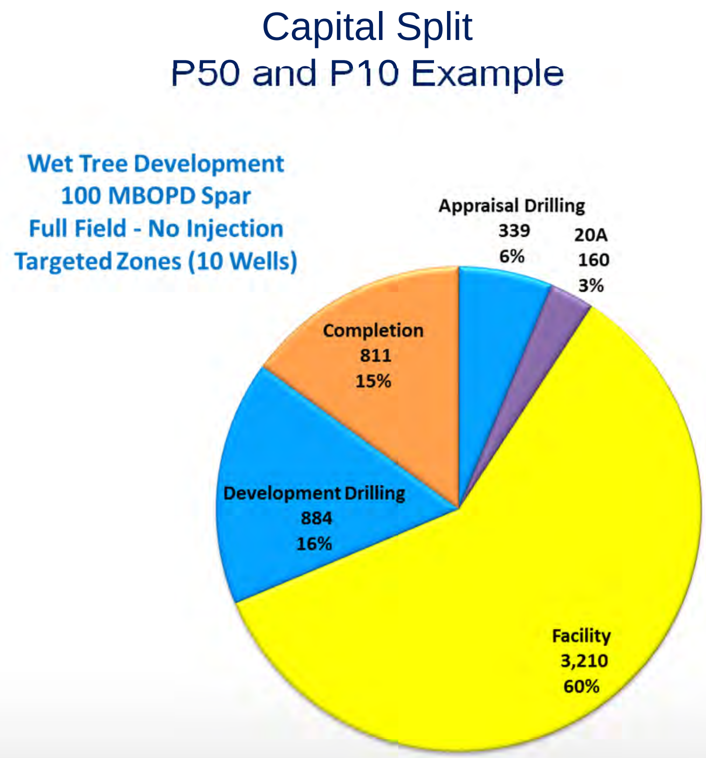

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Economic Summary (APC WI = 30%)

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Risked / Un-risked Mean Stand-alone (2016 forward)

	Invest $60/bbl			Upside $80/bbl				
	Net AT NPV10 ($MM)	AT PIR10	F&D ($/BOE)	Net AT NPV10 ($MM)	AT PIR10	F&D* ($/BOE)	Mean Gross EUR (MMBOE)	P_c
Risked Mean	208	0.22	15.38	478	0.48	16.07	412.6	88.2%
Unrisked Mean	250	0.24	15.18	557	0.50	15.87	468.0	100%

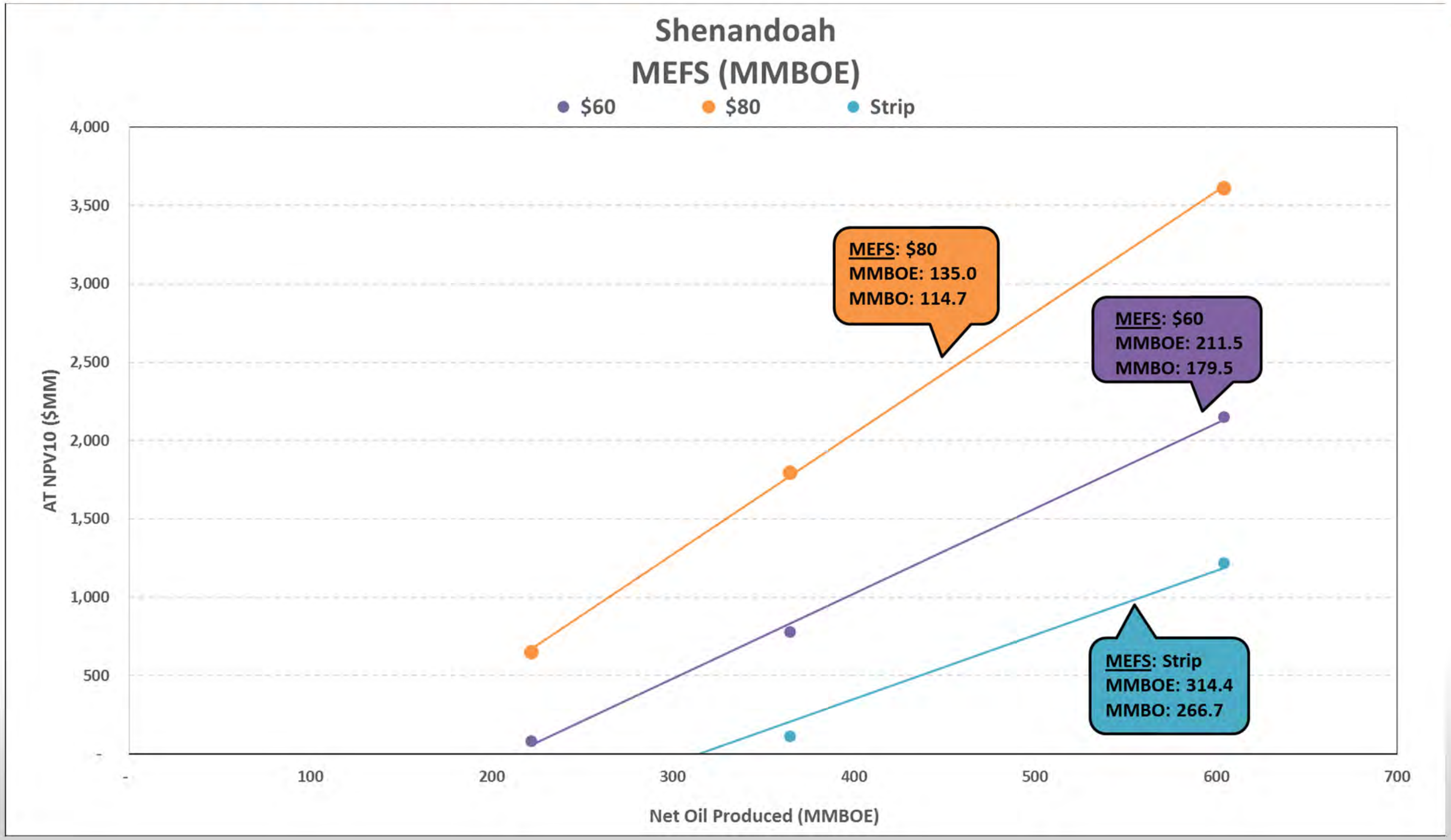
*Increased facilities costs at $80 oil (market driven)

Un-risked P10 (2016 forward) at 100% WI

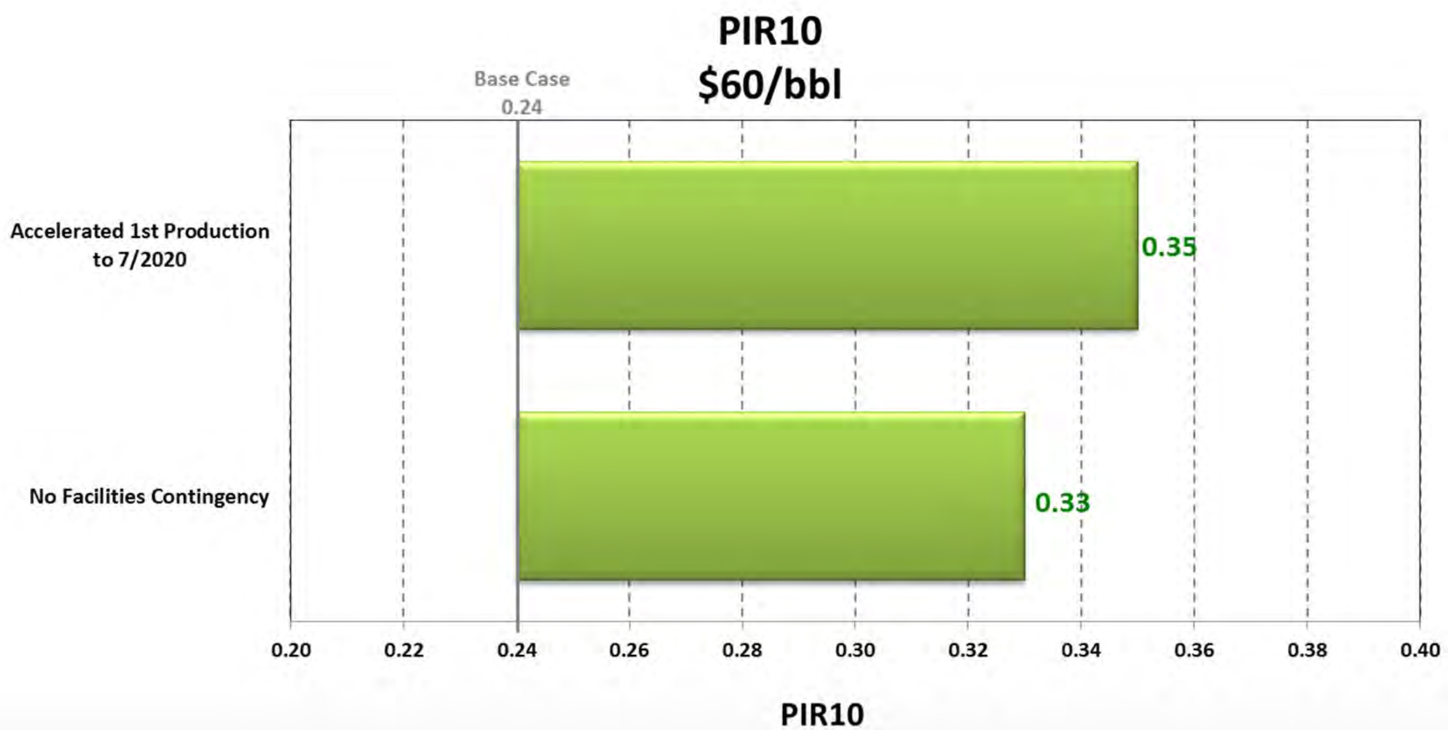
	Invest $60/bbl			Upside $80/bbl				
	Net AT NPV10 ($MM)	AT PIR10	F&D* ($/BOE)	Net AT NPV10 ($MM)	AT PIR10	F&D* ($/BOE)	Mean Gross EUR (MMBOE)	P_c
Unrisked P10	2,185	0.62	9.90	3,659	0.99	10.35	717	100%

*Increased facilities costs at $80 oil (market driven)

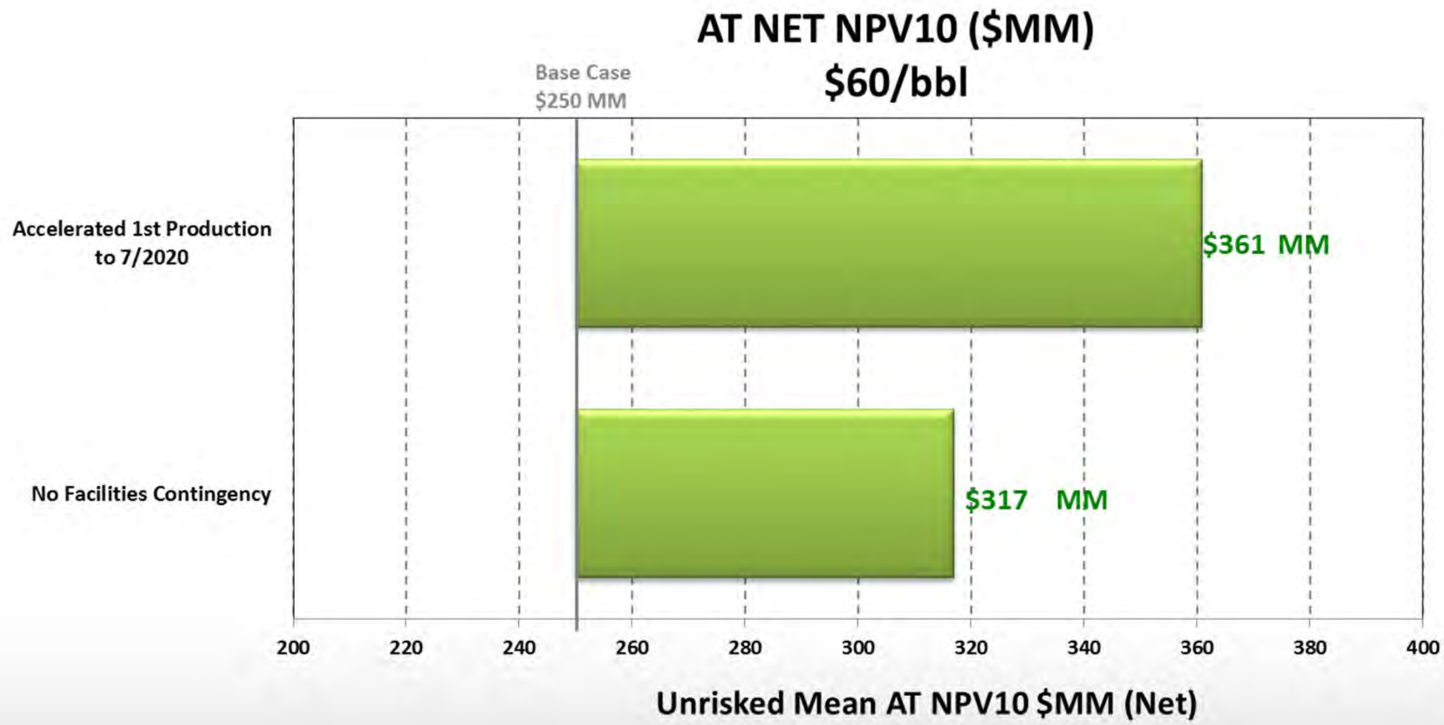
Minimum Economic Field Size



Sensitivities – Tornado Chart (PIR10)

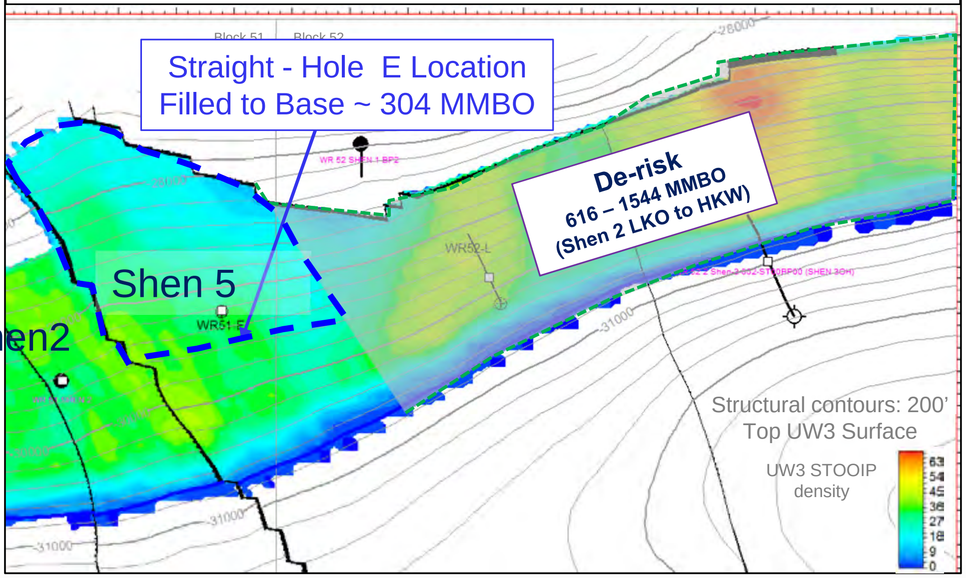


Sensitivities – Tornado Chart (NET AT NPV 10)



Appraisal Impact: Shen 5 (E Location)

Mid-case STOOIP distribution (East Shenandoah)



Shen 5 Success
Incremental Resource Exposure

Shen 5 (Shen 2 look alike)	STOOIP MMBO
Filled to Base	304
Shen 2 Proj. OWC	501
Shen 3 HKW	665

West Shenandoah Resource Range

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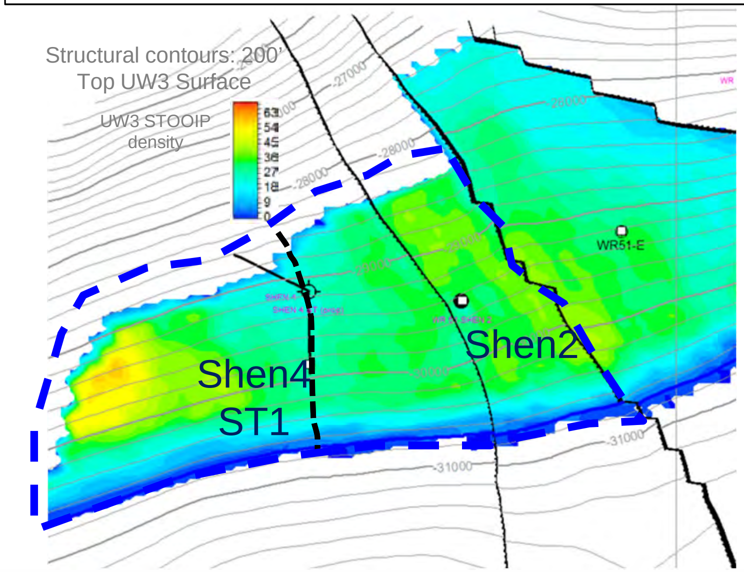
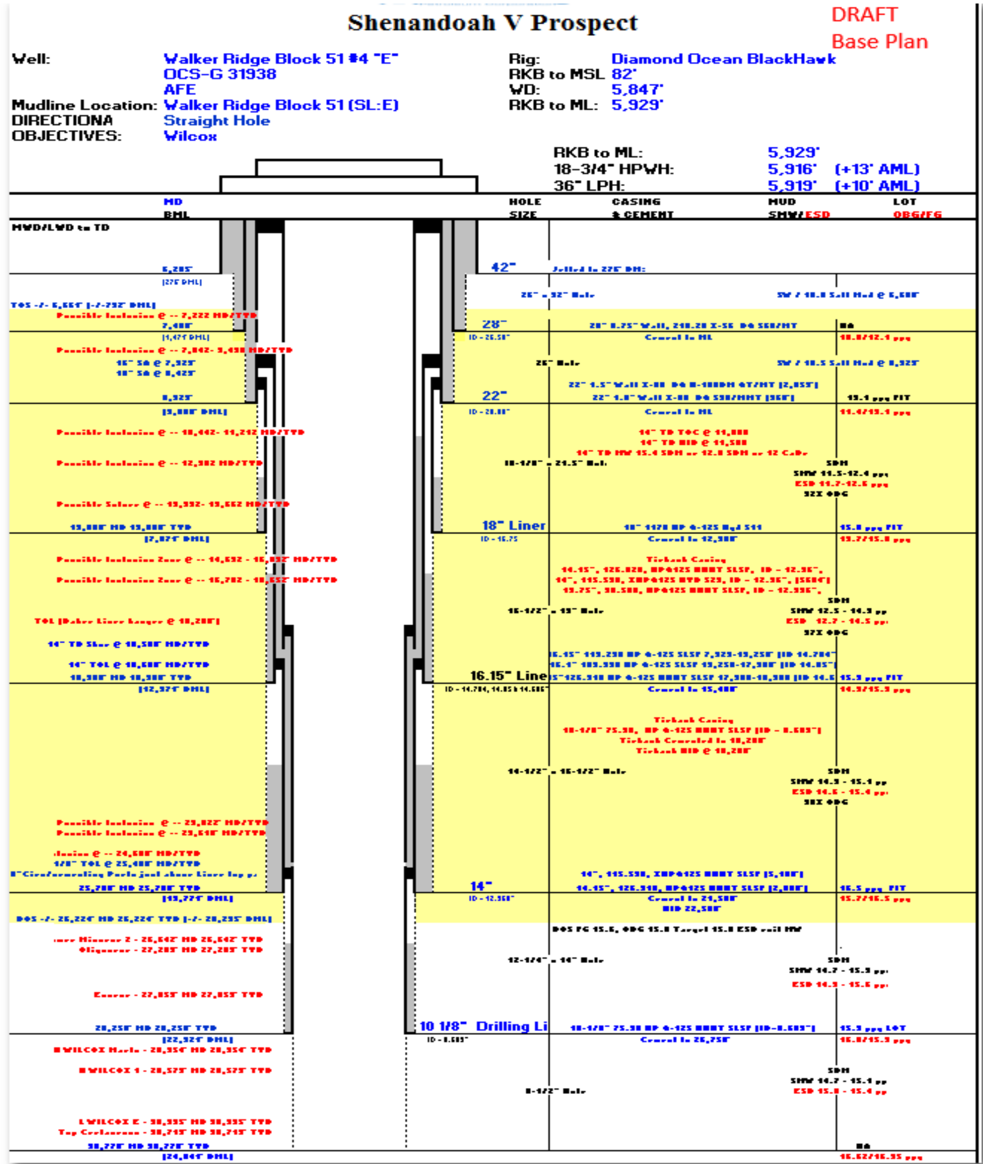
Simulation Current

	Original In Place		Prospective Undiscovered Recoverable Resources				
			Liquids		Sales Gas		Total Geologic Pre-Drill
	Oil	Raw Gas	Oil	Total Cond	Non-Assoc	Soln	
	MMBO	BCF	MMBO	MMBO	BCF	BCF	MMBOE
P99	436.95	0.00	48.87	0.00	0.00	56.20	60.68
P90	590.79	0.00	95.57	0.00	0.00	113.23	115.55
Mode	727.14	0.00	140.58	0.00	0.00	188.05	188.74
P50	858.59	0.00	185.49	0.00	0.00	221.92	222.93
Mean (P99->P01)	898.99	0.00	201.99	0.00	0.00	238.32	241.71
P10	1277.49	0.00	339.03	0.00	0.00	395.44	404.29
P01	1713.03	0.00	491.38	0.00	0.00	564.44	582.31

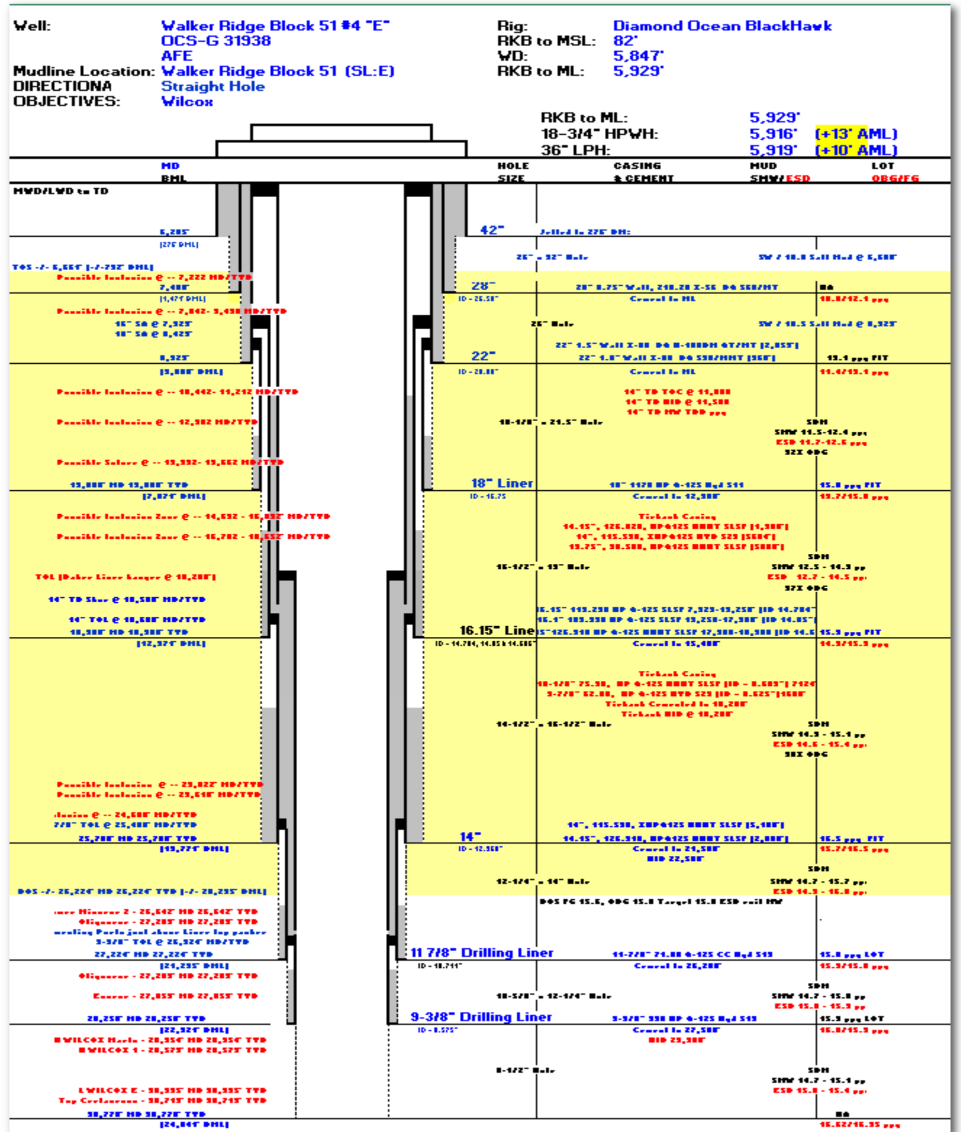
Mid-case STOOIP distribution (West Shenandoah)



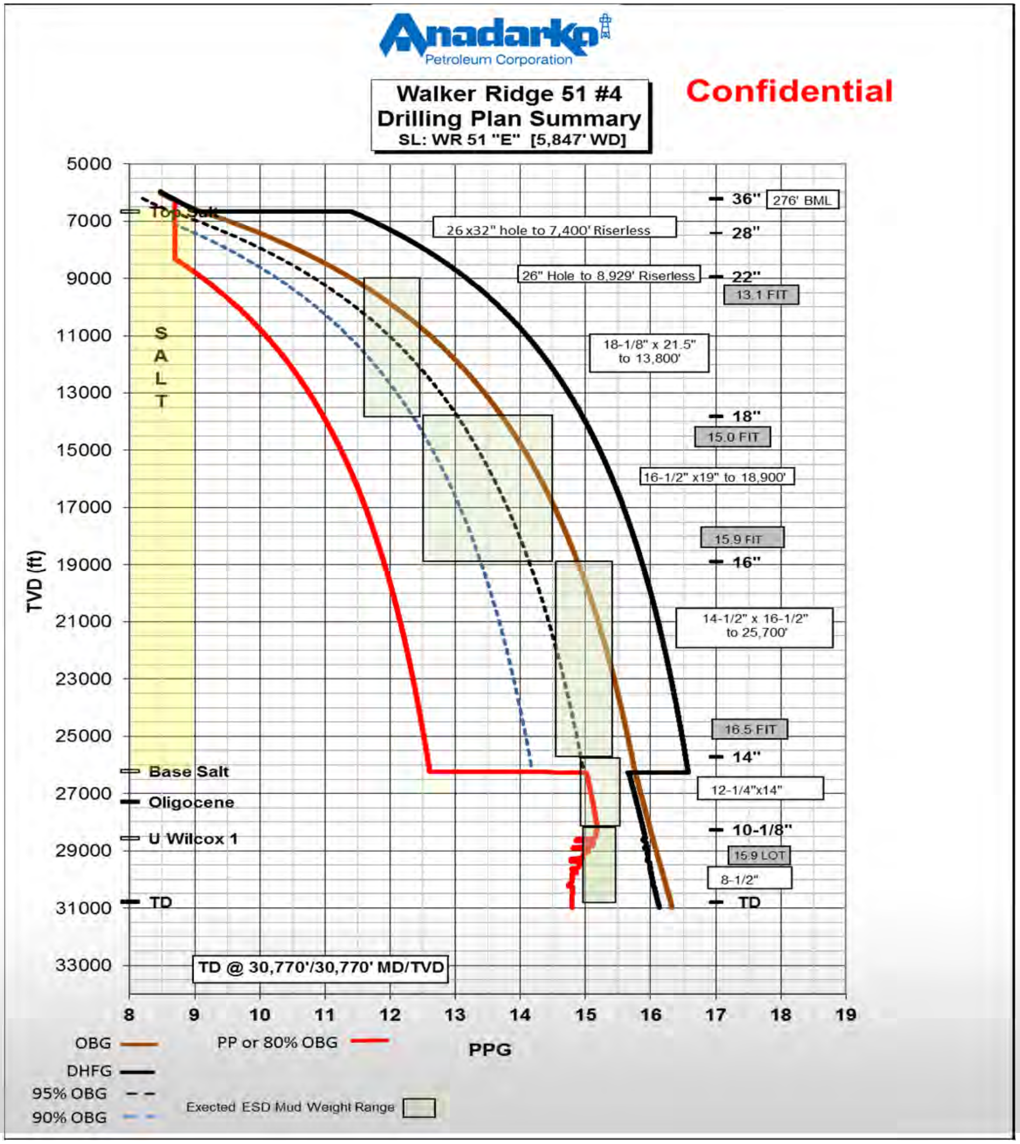
Well Design:
Base Plan



Well Design:
Contingency Casing



Well Design:
Pore Pressure



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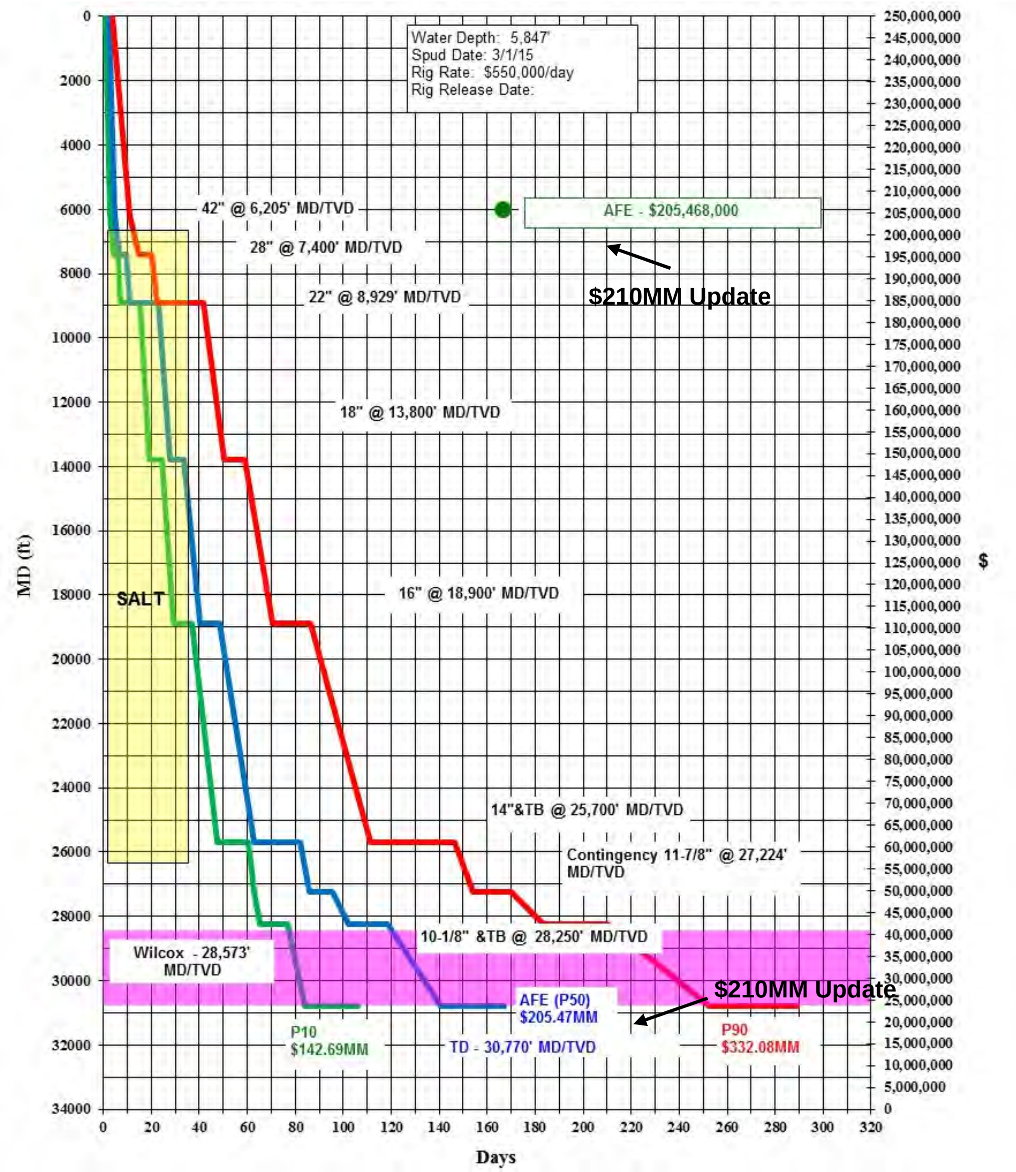
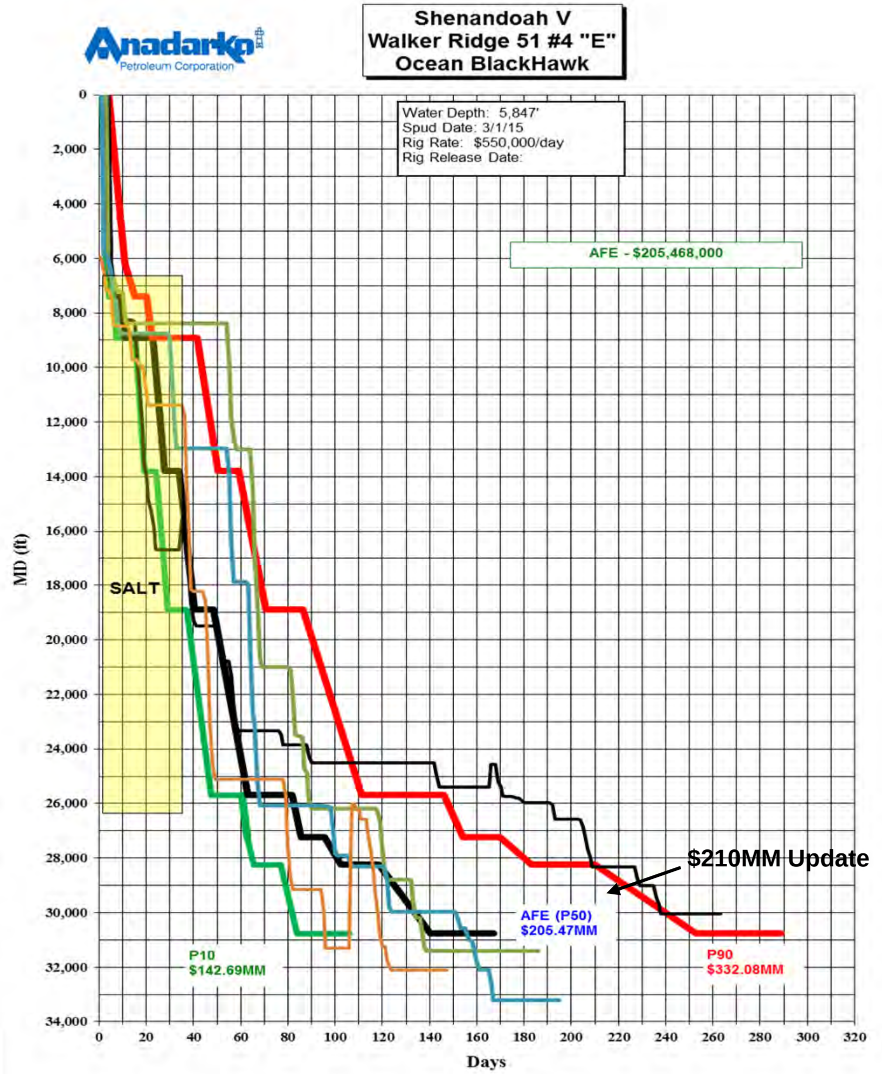
Days & Costs Curve



Days & Costs Curve with Offset Wells



ANADARKO GOM

Shen 4 BP1 Core Update

January 21th, 2016

Shen 4 BP Well Summary

ANADARKO

- **BP well kicked off at 28,098' (Oligo) and reached TD at 31,765' MD in the Cretaceous.**
- **Cretaceous was confirmed with paleo data at approximately 31,590' MD which was higher than expected as the LWE sand facies was largely missing.**
- **The well averaged 300' to 400' of lateral separation from the ST wellbore throughout the Wilcox section.**
- **The top sand (interpreted as part of the UW2), most of the LWE sand, and the LWF sands were missing relative to the ST well.**
- **Due to an obstruction at 30,570' MD, no WL data was obtained below this depth (Lower LWB, LWC, LWD & LWE formations**

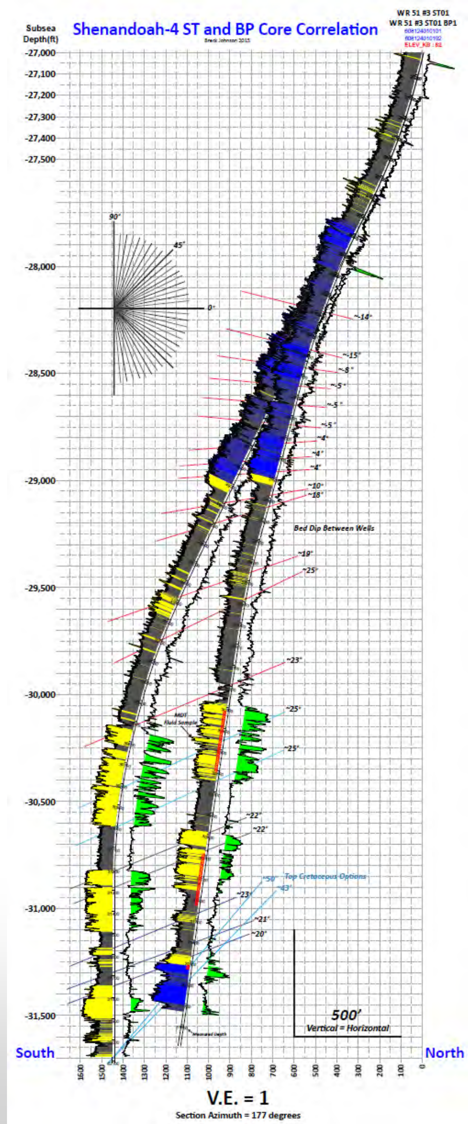
Shen 4 BP Core Program Summary

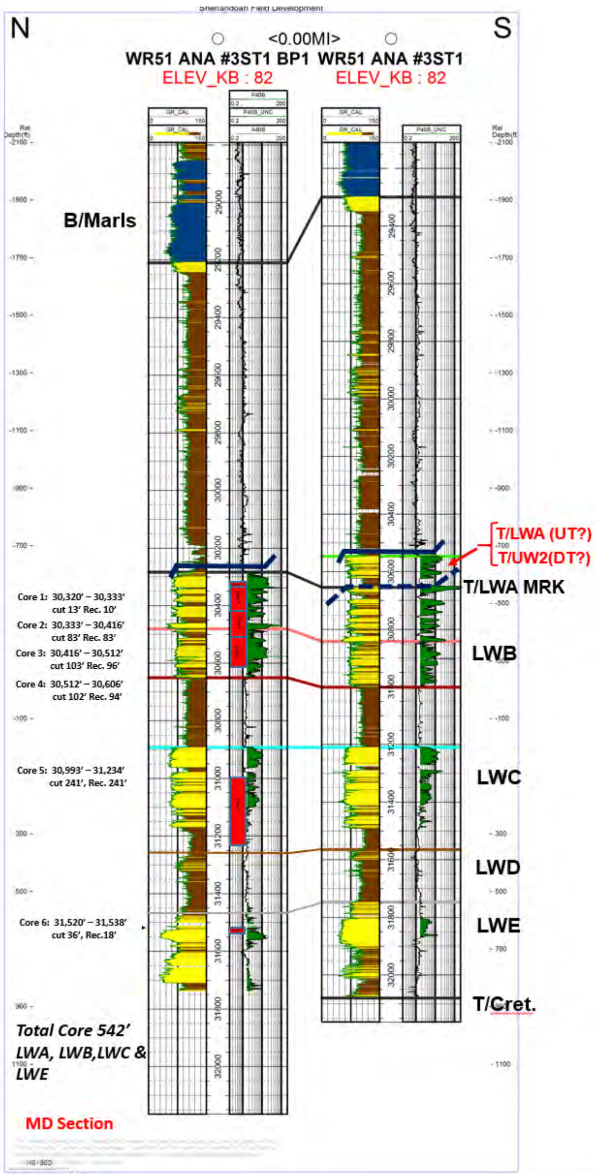
ANADARKO

- Six Cores acquired totaling 542' covering portions of LWA, LWB, LWC & LWE formations
- Core 1 utilized a 360' core barrel with 4.5"steel inner barrel (results in a 4" core) with recovery of only 10'after early jam
- Cores 2 thru 6 all had 240', 4 1/4"aluminum barrels with jam buster (results in a 3.5" core)

  Resulted in likely better recoveries – jamming occurred at sand/shale interfacies
- Core 6 in LWE sand jammed after 18 feet and did not core LWE main interval
- Total cost for core & wireline logging operations estimated to be $56.5 MM

Shen 4 ST & BP Structural Cross Section





Shen4 BP1

Core 1: 30,320' – 30,333'
cut 13' Rec. 10'

Core 2: 30,333' – 30,416'
cut 83' Rec. 83'

Core 3: 30,416' – 30,512'
cut 103' Rec. 96'

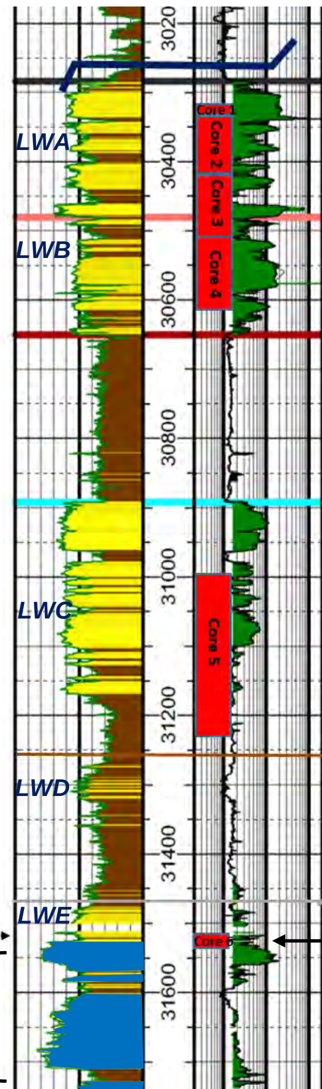
Core 4: 30,512' – 30,606'
cut 102' Rec. 94'

Core 5: 30,993' – 31,234'
cut 241', Rec. 241'

Core 6: 31,520' – 31,538'
cut 36', Rec.18'

Total Core:542'

Mostly carbonates
with siltstones



30,346' – Core 2

SANDSTONE: grey, medium grey, clear to translucent, moderate stained, hard to medium hard, rounded to sub-rounded, very fine grains, moderately to well sorted, good intergranular porosity (10%-15%), presence of fracture porosity, strong petroliferous odor, even dull yellow DF, moderately fast blooming buish white cut, thin very light brown risudual ring.

30,418' – Core 3

SANDSTONE: medium grey brown oil stain, fine grained, sub angular, moderately sorted, weakly cemented, poor to moderate (5% - 15%) intergranular porosity, dull yellow DF,weak white crush CF, weak to moderate HC odor.

30,551' – Core 4

SANDSTONE: very fine grains, medium brown, translucent, moderate brown oil stain, rare trace dead oil, firm to slightly hard, friable in places, quartzitic, rounded to sub-rounded, massive, moderately to well sorted, moderate visible porosity, slight calcareous, very weak petroliferous odor, even pale yellow fluorescence, moderately slow streaming bluish white cut, no residual ring.

31,075' – Core 5

SANDSTONE: light brown, translucent, very fine grains, predominantly light brown oil stained, soft to firm, friable, quartzitic, sub-rounded to sub angular, massive, moderately well sorted, moderate visible porosity, slight calcareous.
Slight hydrocarbon odor, pale yellow N/F, slow streaming blue/white cut . No residue ring

31,140' – Core 5

SILTSTONE: medium to dark gray, finely laminated, hard, brittle, non calcareous.
No Show

31,520' to 31522' - Core 6
Siltstone/Sandstone: medium to dark gray, hard, slightly calcareous to calcareous, black carbonaceous fragments

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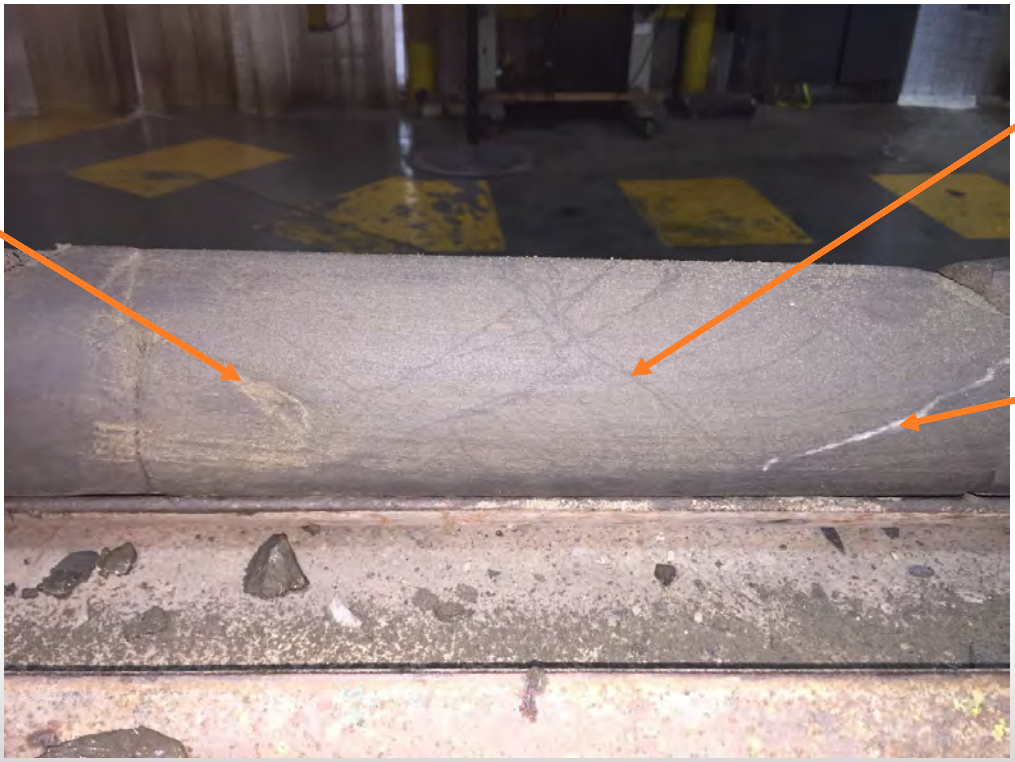
Top of the core 30321'-30323

SANDSTONE: clear, translucent, smoky, light brownish grey due to oil stain, firm to moderately hard, quartzitic, rounded to sub-rounded, massive, very fine to fine grains, moderately to well sorted, generally poor to fair intergranular porosity (10% - 15%), weak to moderate petroliferous odor, no visible direct fluorescence, very weak cloudy greenish brown crush cut, faint thick light brown residual ring.

Fractures, most likely
Coring induced due the shape (petal)



Deformation Bands? filled fractures?

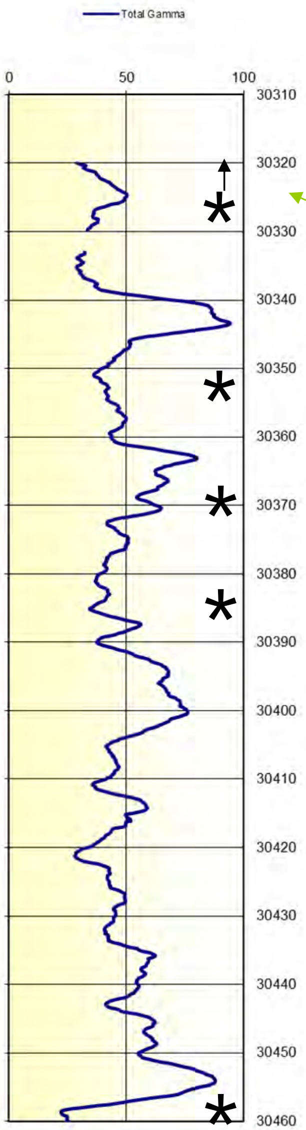
Vein?

Structure - Cores 1 & 2

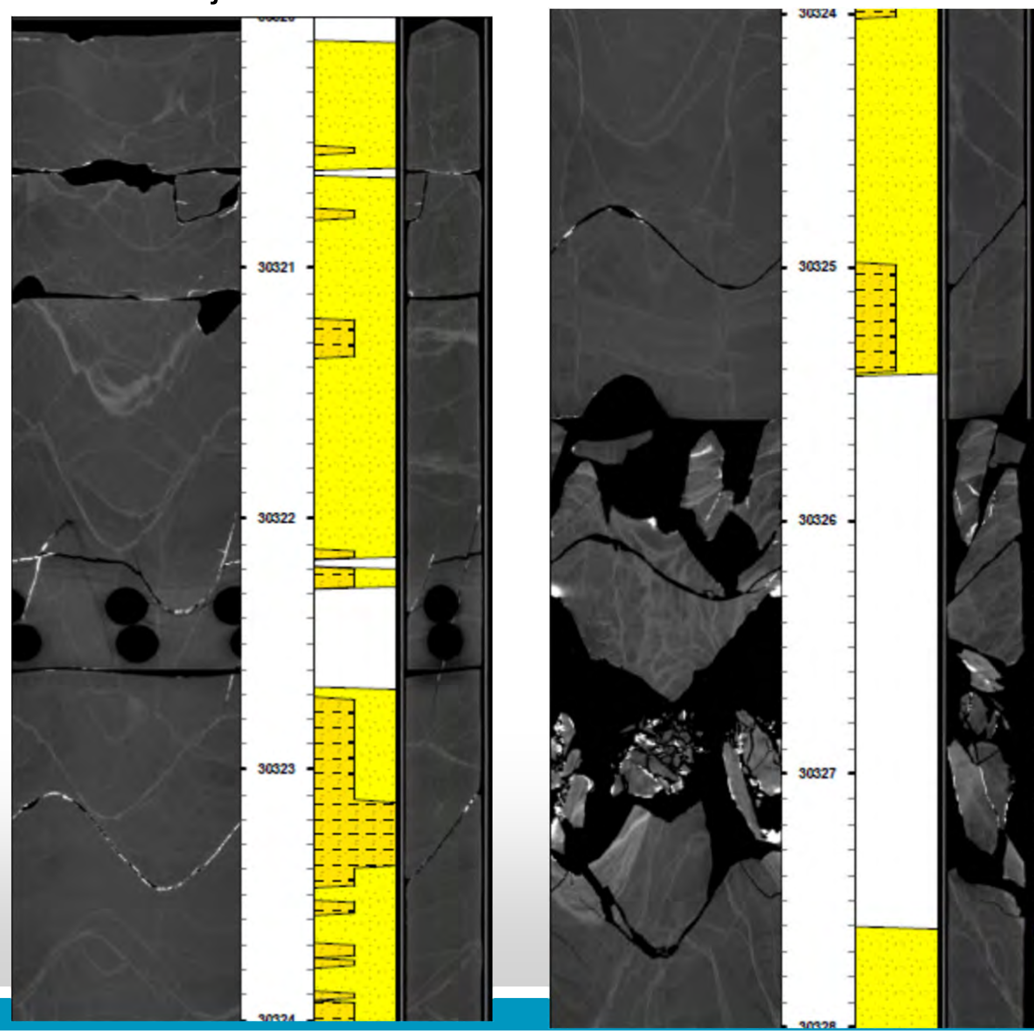
- **Most clean sands contain deformation bands**

- **Numerous wide clusters of bands, which is different from the Shen 3 core, indicating enhanced levels of (shear) strain and closer proximity to major faults.**

- **Some of the faults show apparent reverse offsets. It is possible that they originated as normal or oblique slip faults and have been rotated (along with bedding) to show reverse offsets today. More work on this will take place once we load the CT scans into our image software to measure the orientation and offsets.**



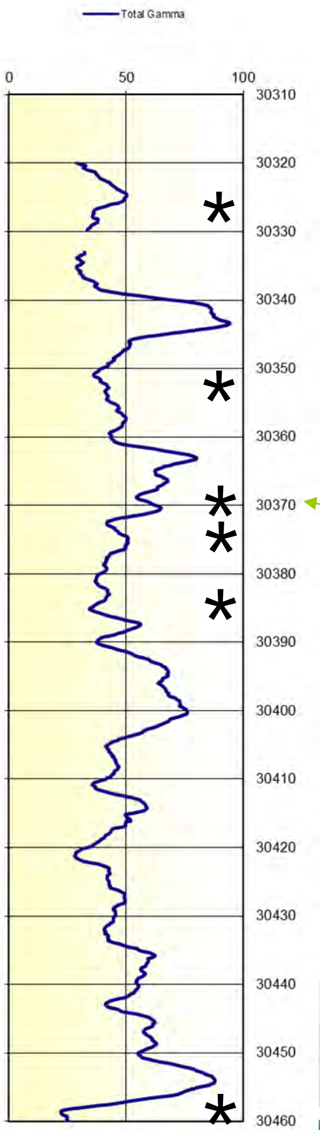
Possible Major FAULT ZONE

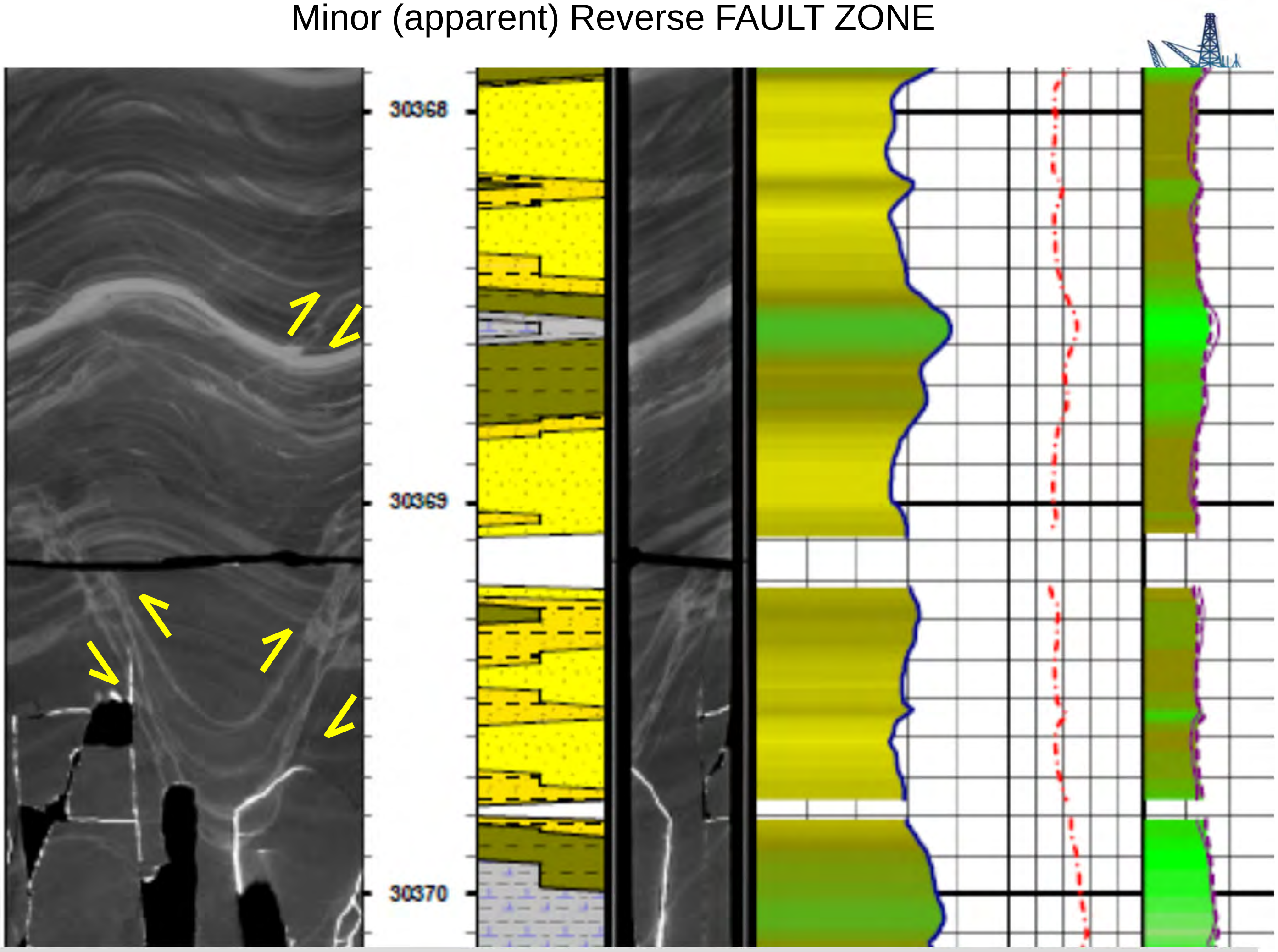


ANADARKO

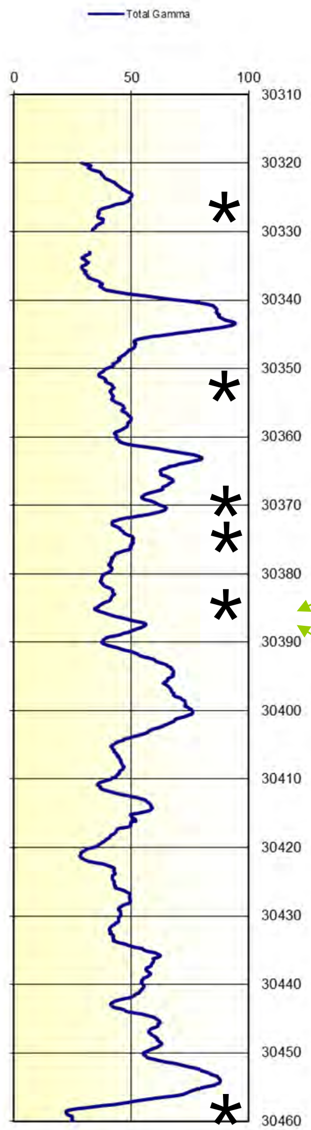
CORPORATION

Minor (apparent) Reverse FAULT ZONE

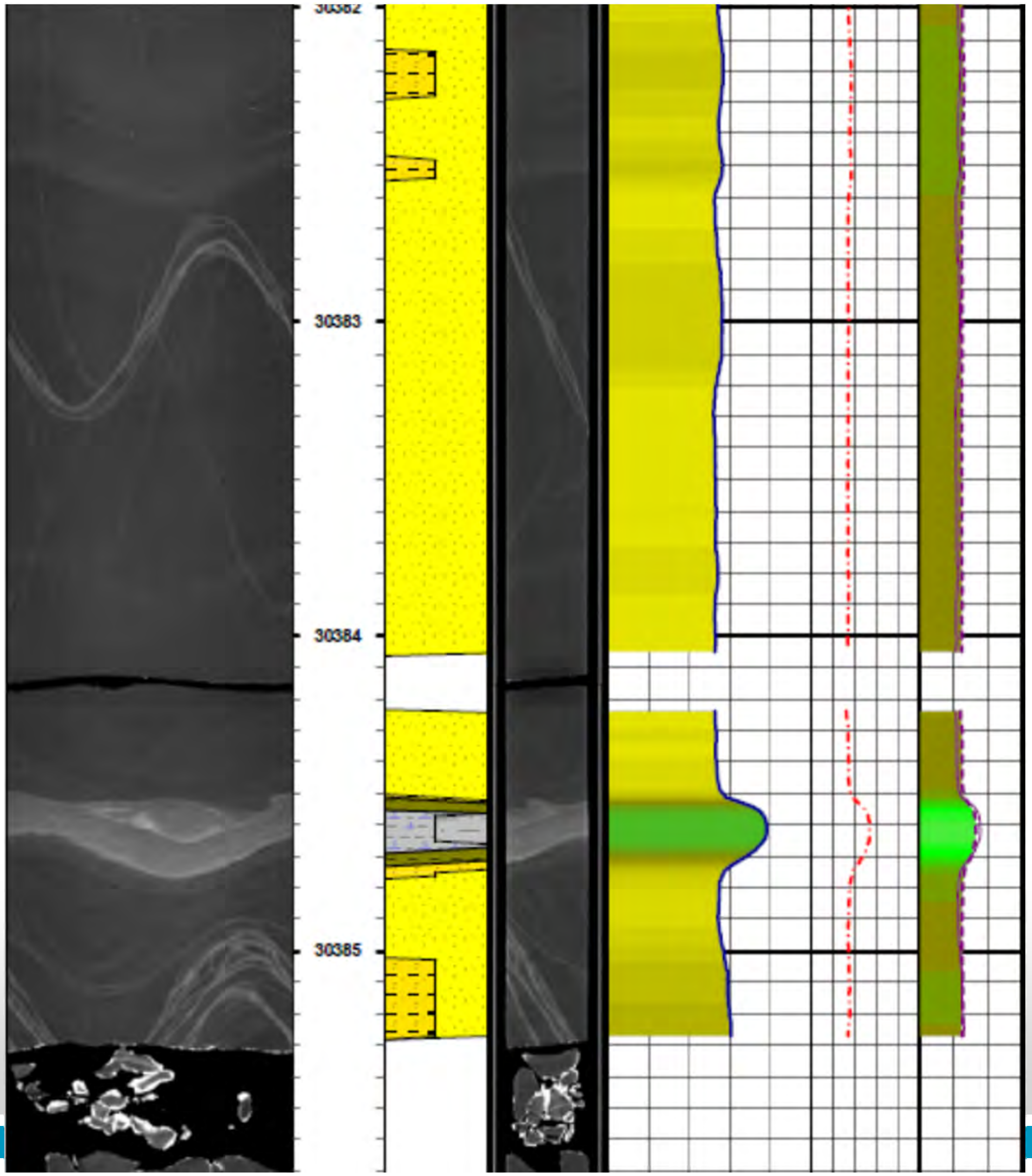




CORPORATION



Minor FAULT ZONES

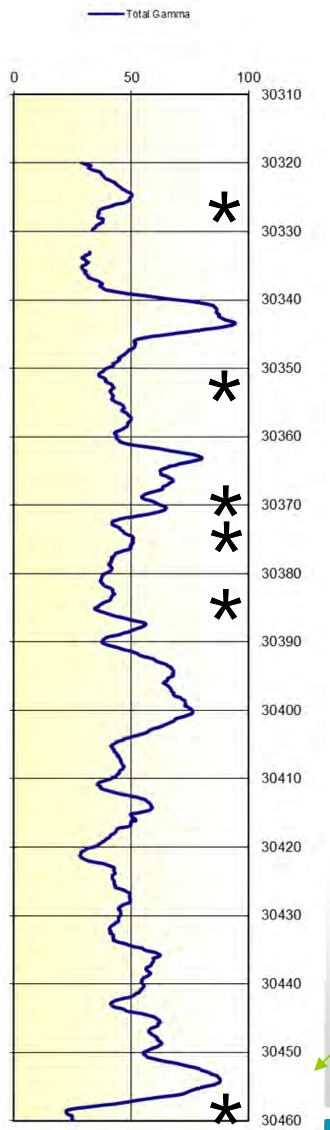


CORPORATION

Structure - Cores 3 & 4

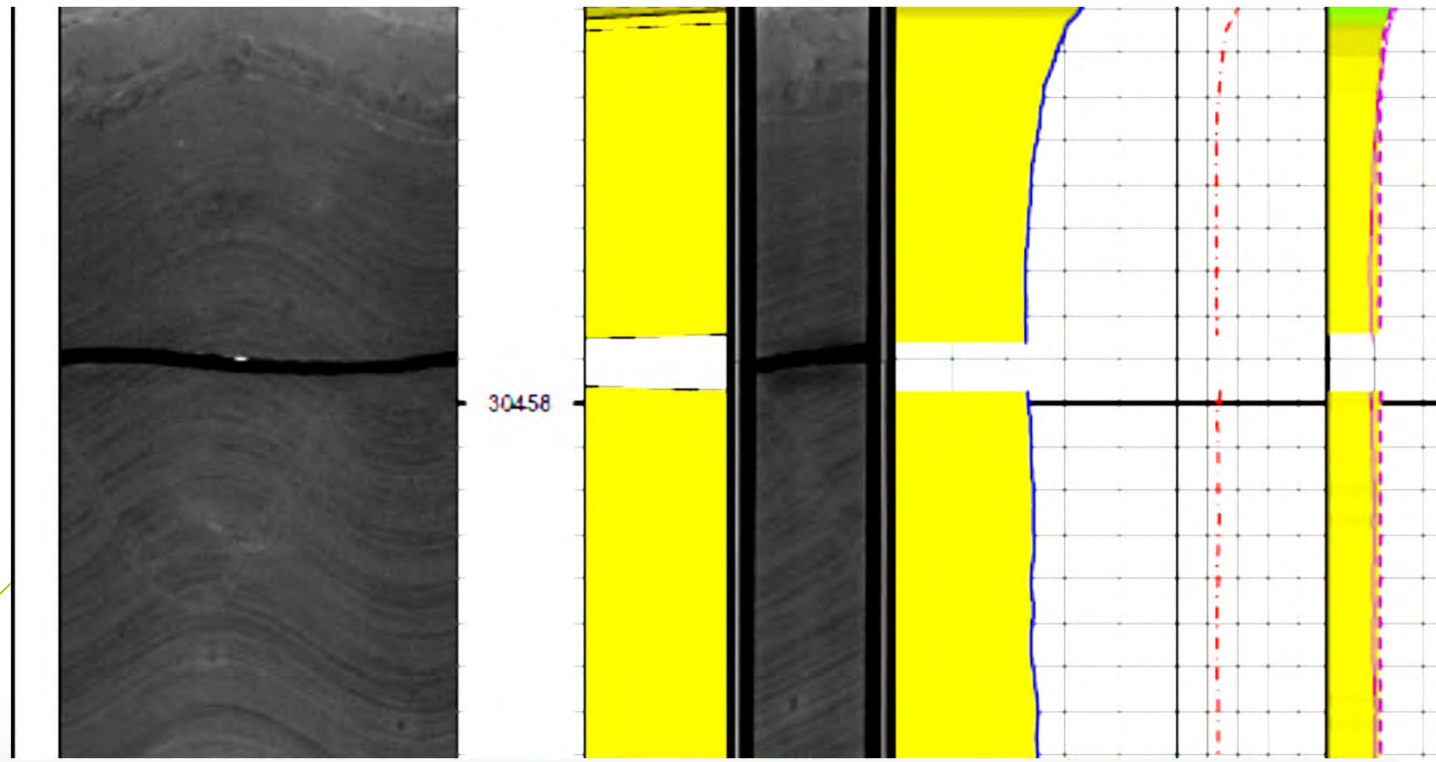
- Relatively undeformed compared to cores 1 and 2, (2 main clusters of bands exist), but deformation band based faults do exist in some of the sands

- One of the clusters show apparent reverse offsets.



ANADARKO

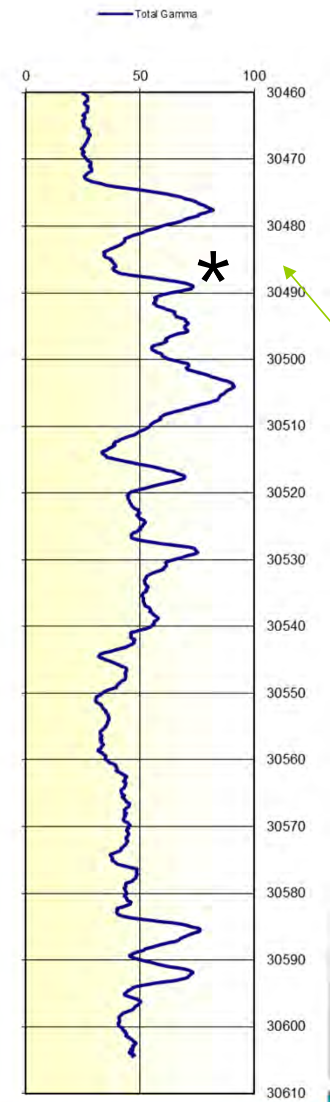
Minor (apparent) Reverse FAULT

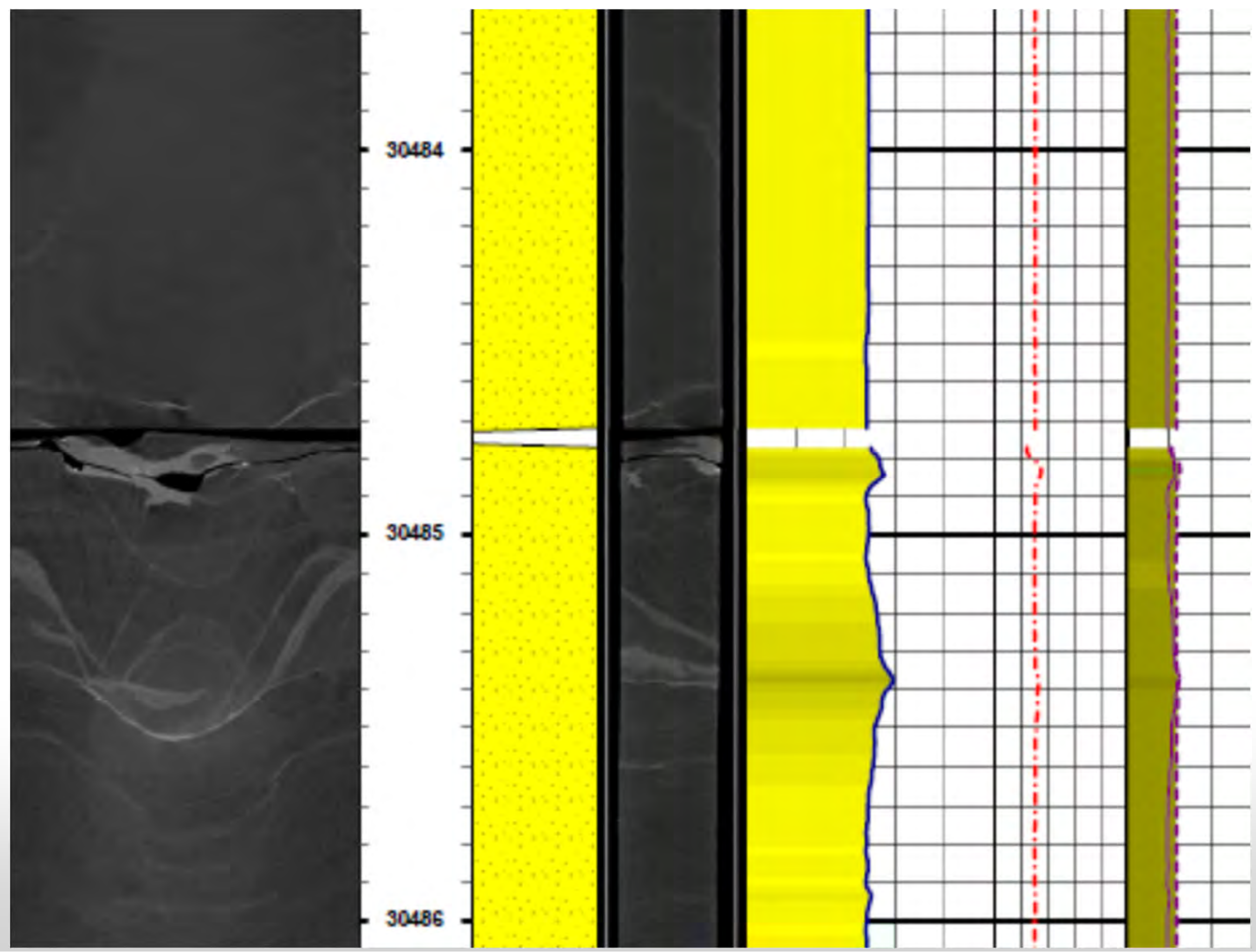


CORPORATION

ANADARKO

Minor FAULT





Core 1 – 30320 – 30330’

Core 1: 30,320’ – 30,333’
cut 13’ Rec. 10’

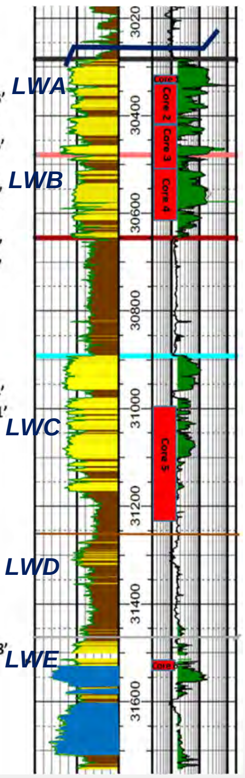
Core 2: 30,333’ – 30,416’
cut 83’ Rec. 83’

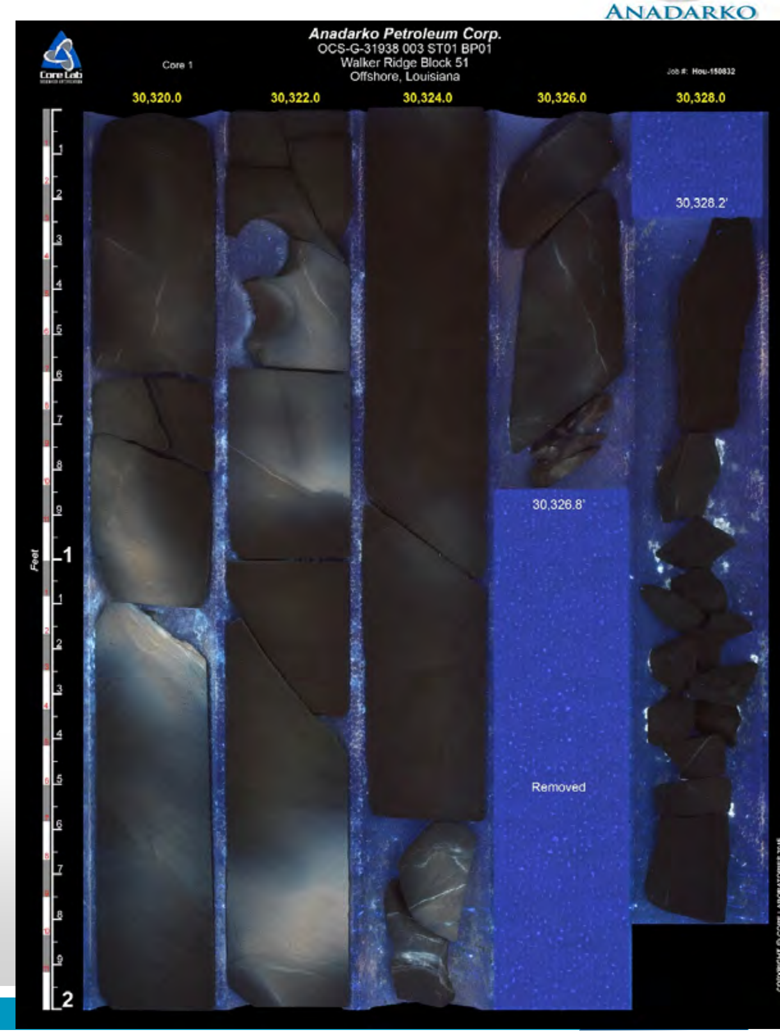
Core 3: 30,416’ – 30,512’
cut 103’ Rec. 96’

Core 4: 30,512’ – 30,606’
cut 102’ Rec. 94’

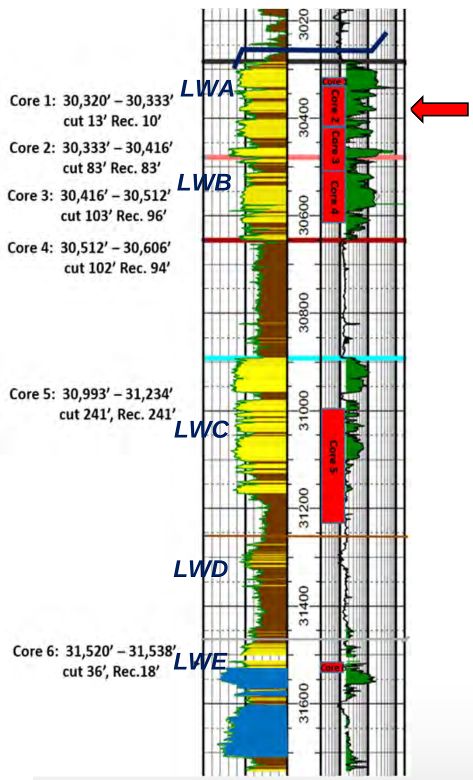
Core 5: 30,993’ – 31,234’
cut 241’, Rec. 241’

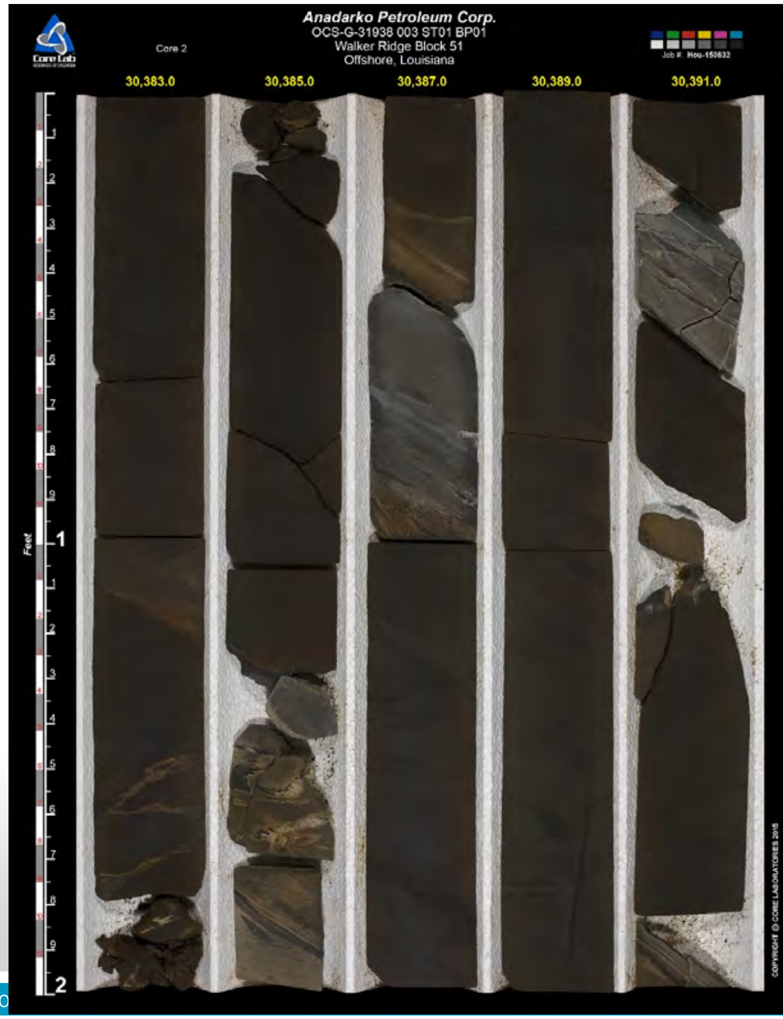
Core 6: 31,520’ – 31,538’
cut 36’, Rec.18’

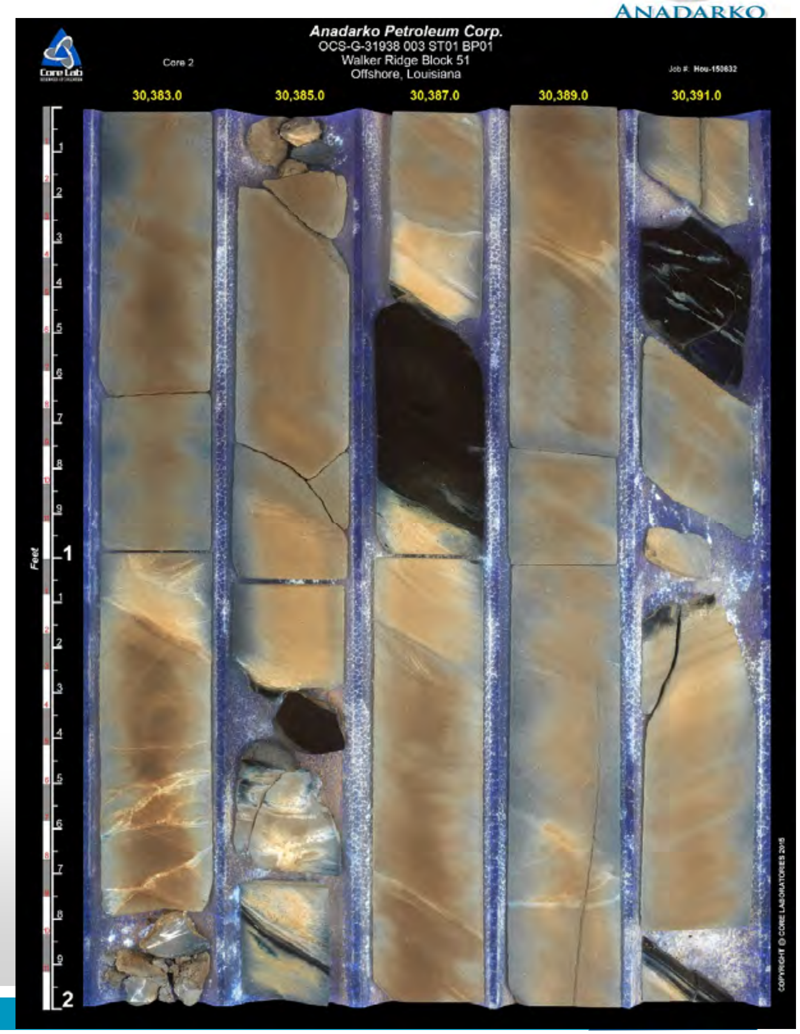




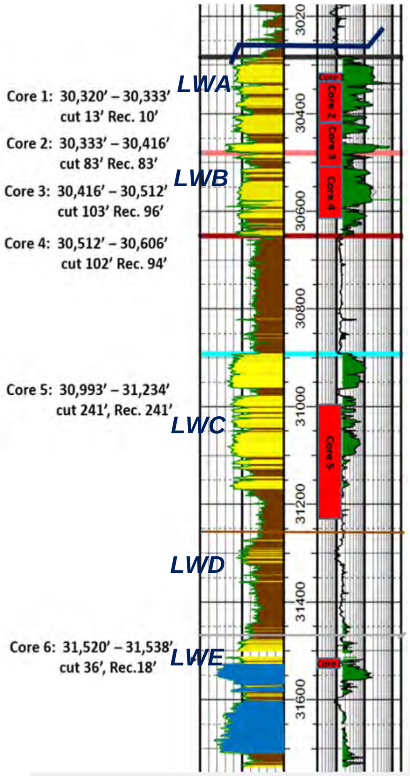
Core 2 – 30383 – 30393'

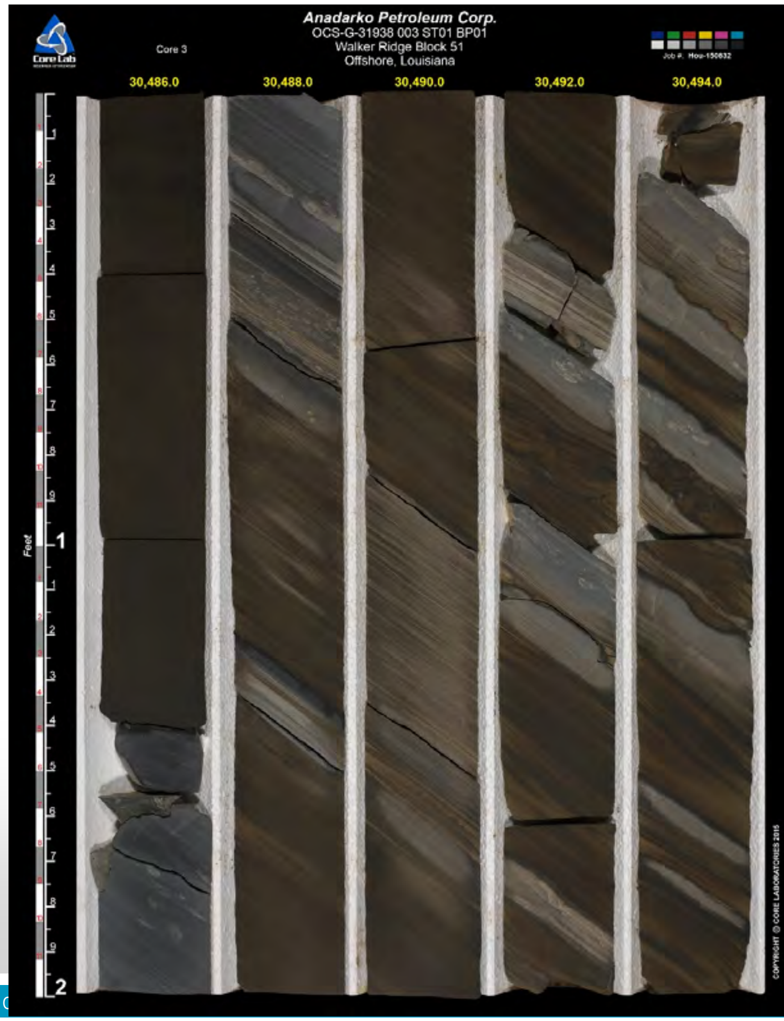


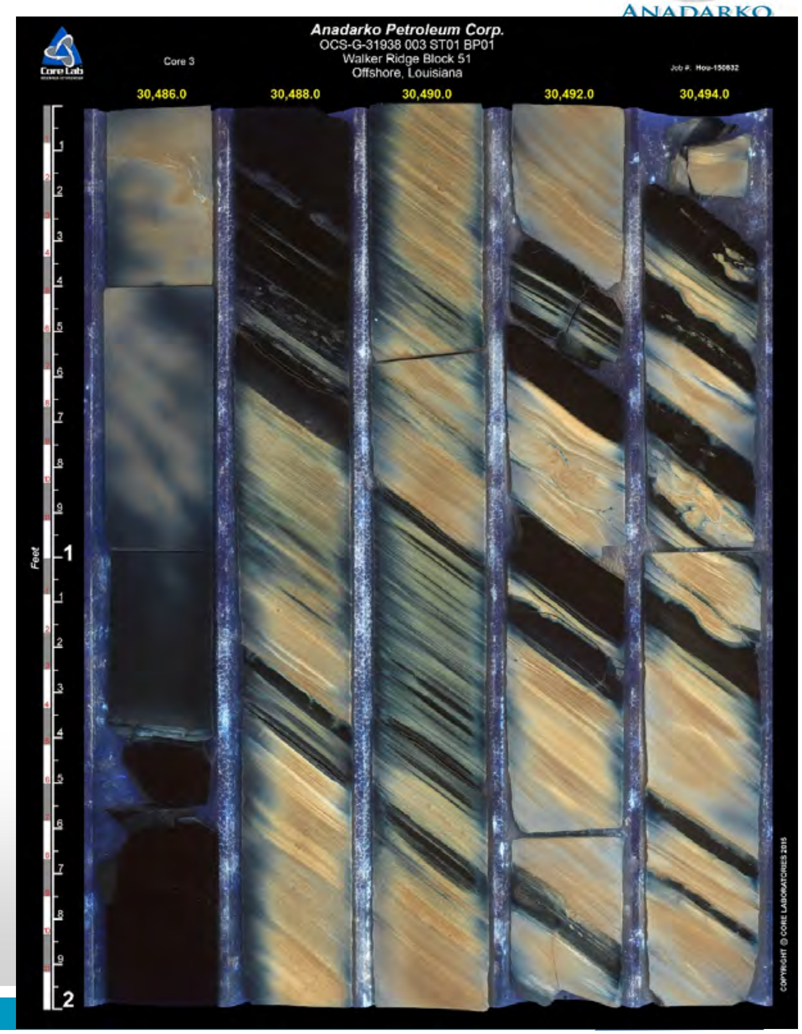




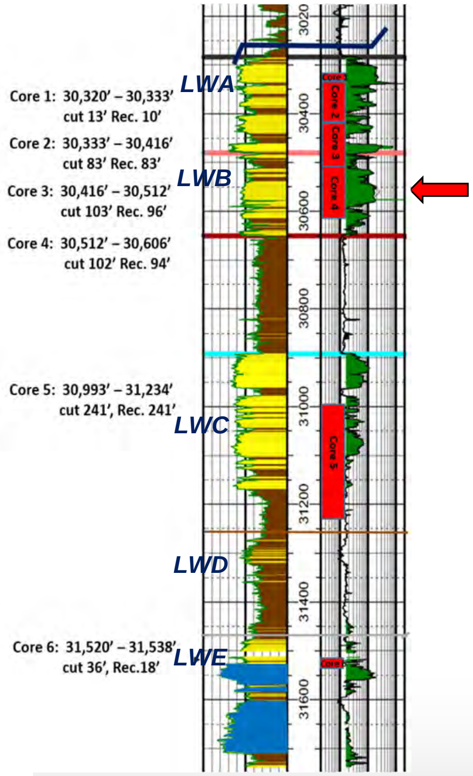
Core 3 – 30486 – 30496’

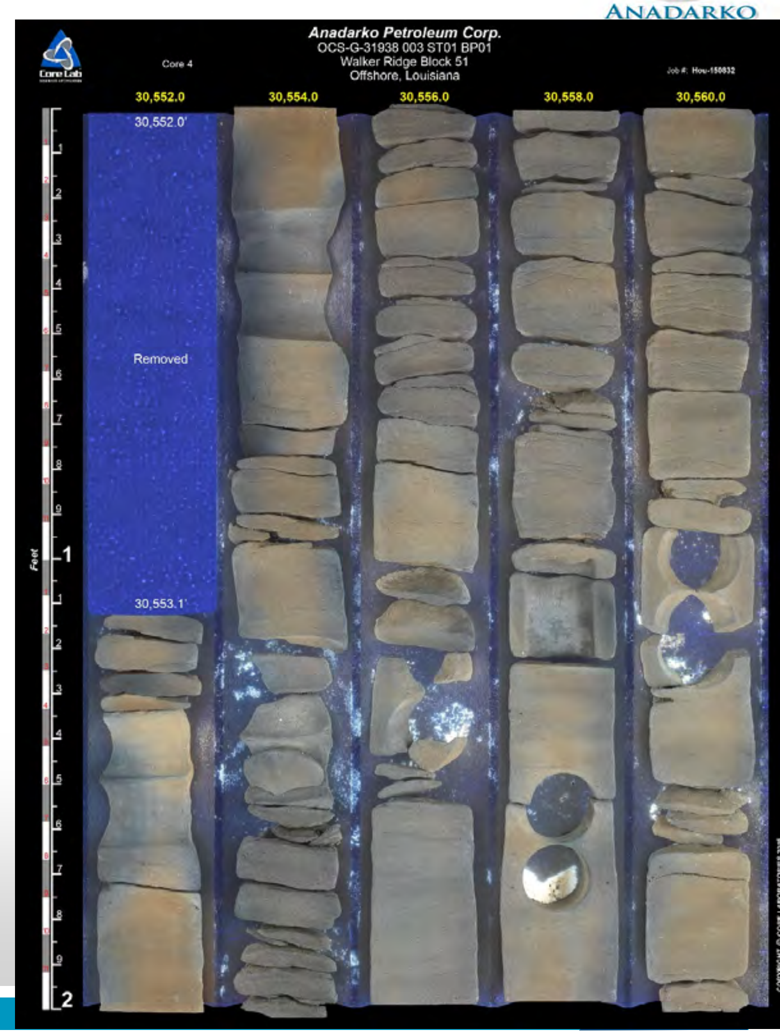




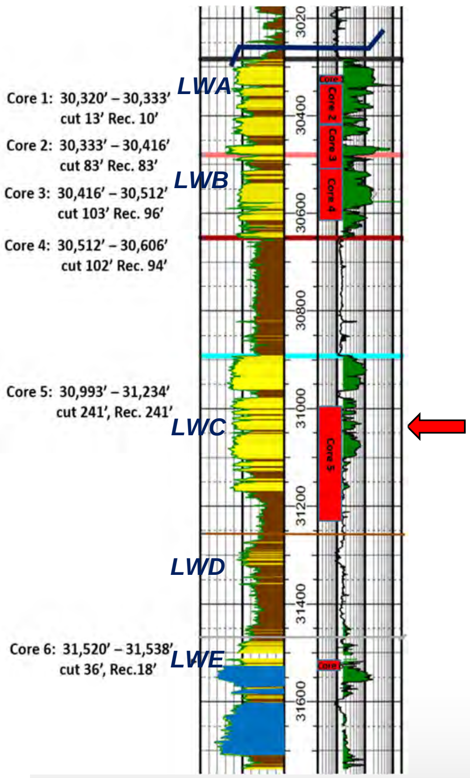


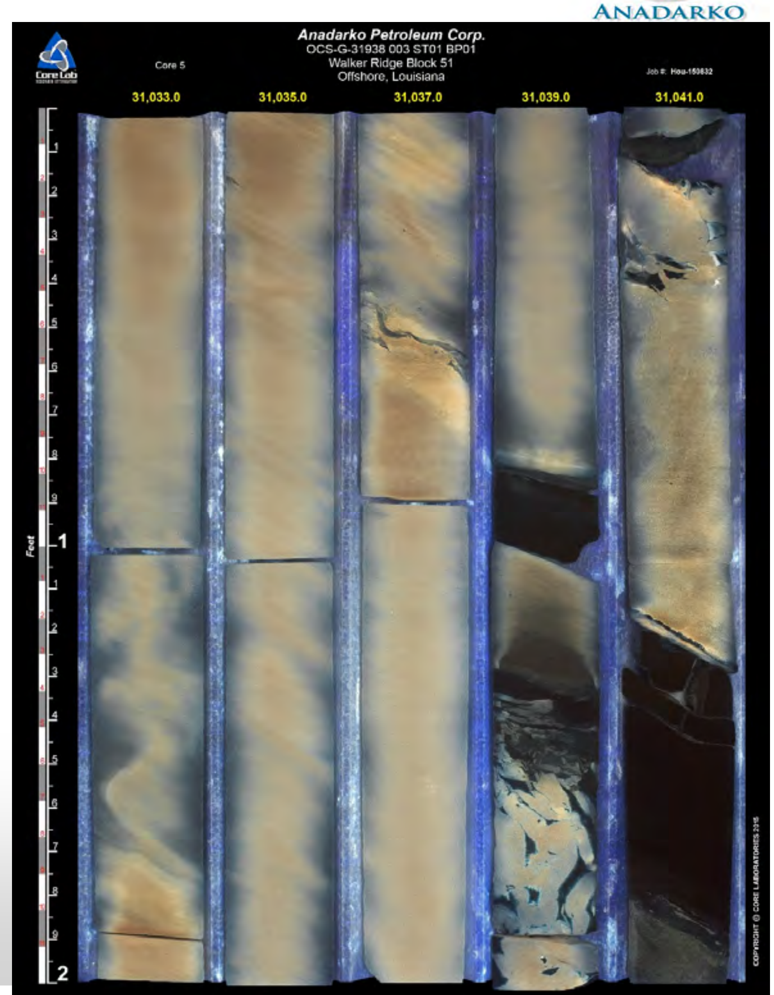
Core 4 – 30552 – 30562’





Core 5 – 31033 – 31043'





Core 5 – 31133 – 31143’

Core 1: 30,320’ – 30,333’
cut 13’ Rec. 10’

Core 2: 30,333’ – 30,416’
cut 83’ Rec. 83’

Core 3: 30,416’ – 30,512’
cut 103’ Rec. 96’

Core 4: 30,512’ – 30,606’
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cut 241’, Rec. 241’

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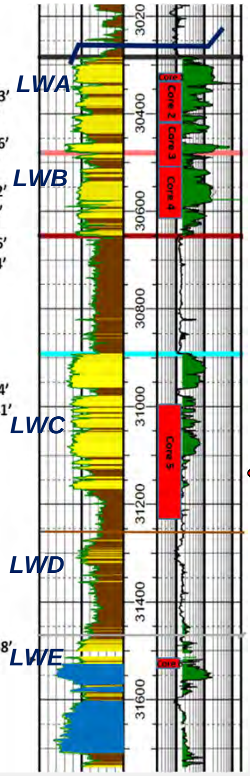
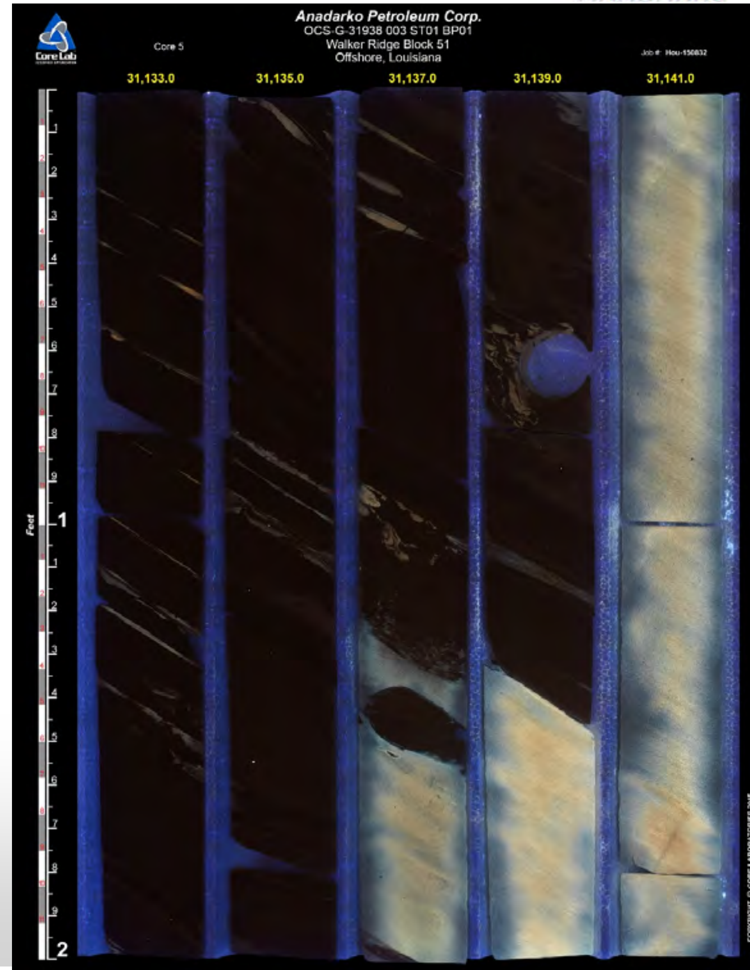
cut 36’, Rec.18’





Core 6 – 31520 – 31530’

Core 1: 30,320’ – 30,333’ cut 13’ Rec. 10’

Core 2: 30,333’ – 30,416’ cut 83’ Rec. 83’

Core 3: 30,416’ – 30,512’ cut 103’ Rec. 96’

Core 4: 30,512’ – 30,606’ cut 102’ Rec. 94’

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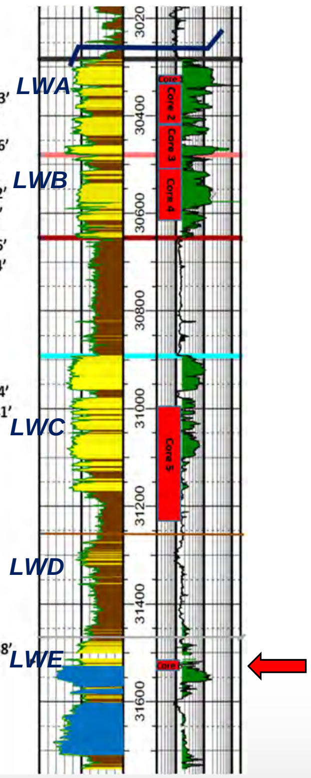
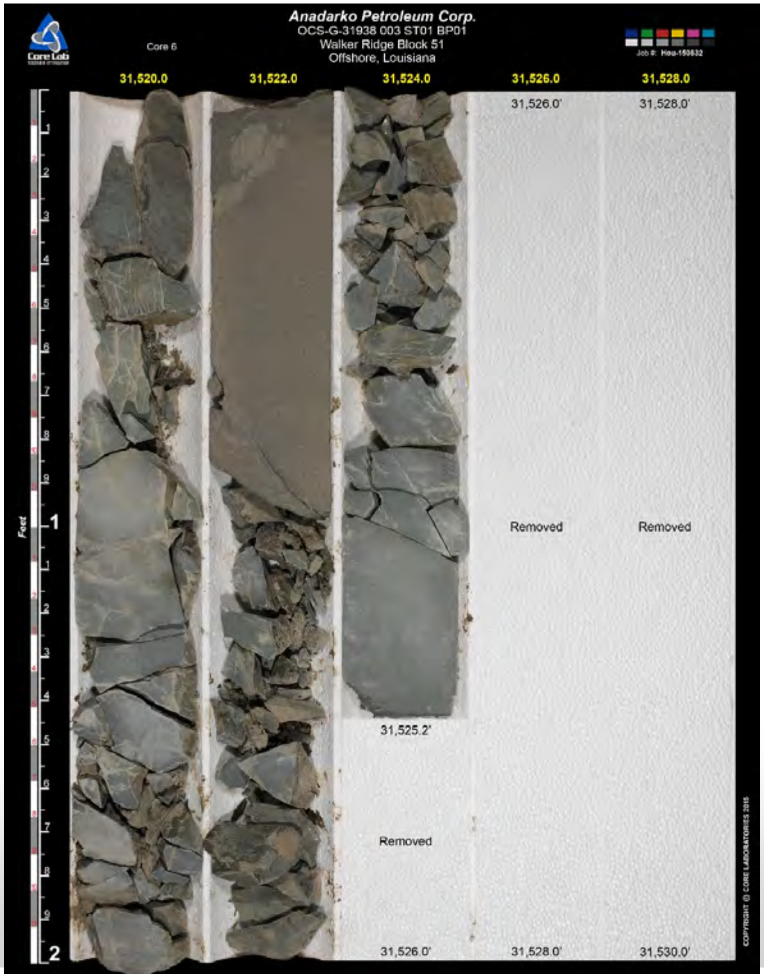
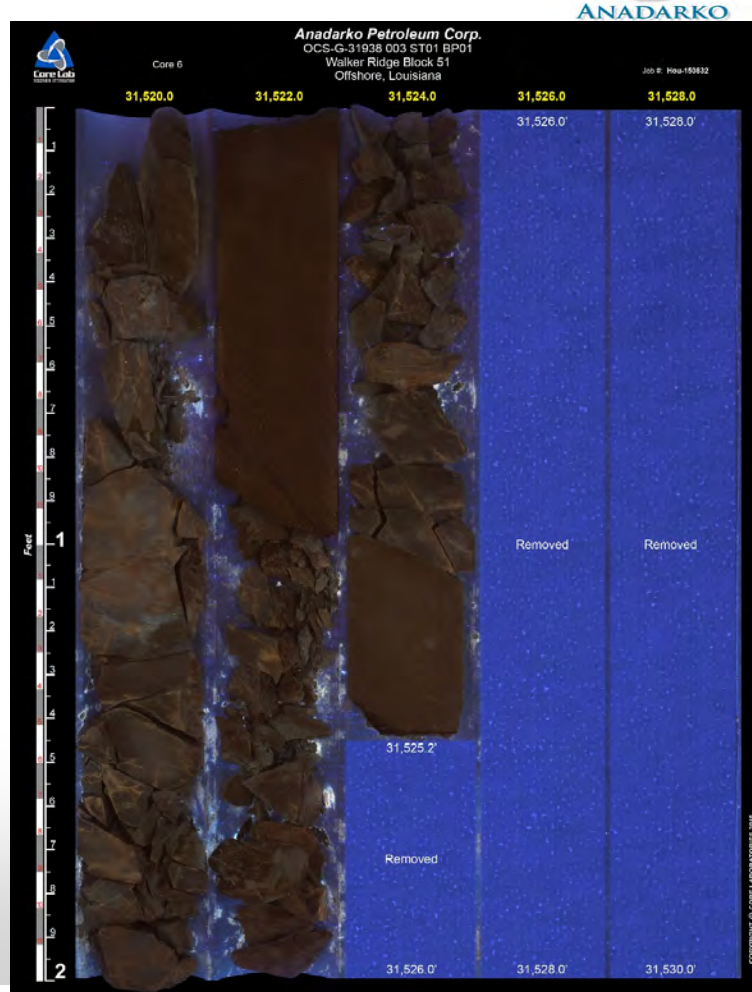






Shen 4 Current Core Status and Path Forward

Current Status

- All six cores are in Core Lab and been extruded
- CT scanning completed for all cores
- Spectral GR completed for all cores
- Core slabbing & photographs completed
- Samples selected (379) for routine analysis w/ companion plugs for SCAL, CT scans, LPSA, thin section, with 6 samples selected for XRD, SEM, and 16 samples for pilot study
- Core Lab (Pat Rush & Team) currently describing core.

Next Steps

- Probe perm measurements ongoing
- Additional CT scans on plugs
- APC workshops discussing preliminary findings (first week in Feb.)
- Shenandoah Partner core workshop (mid to later part of Feb.)

K2 Field – M20 Sand
Waterflood Economics

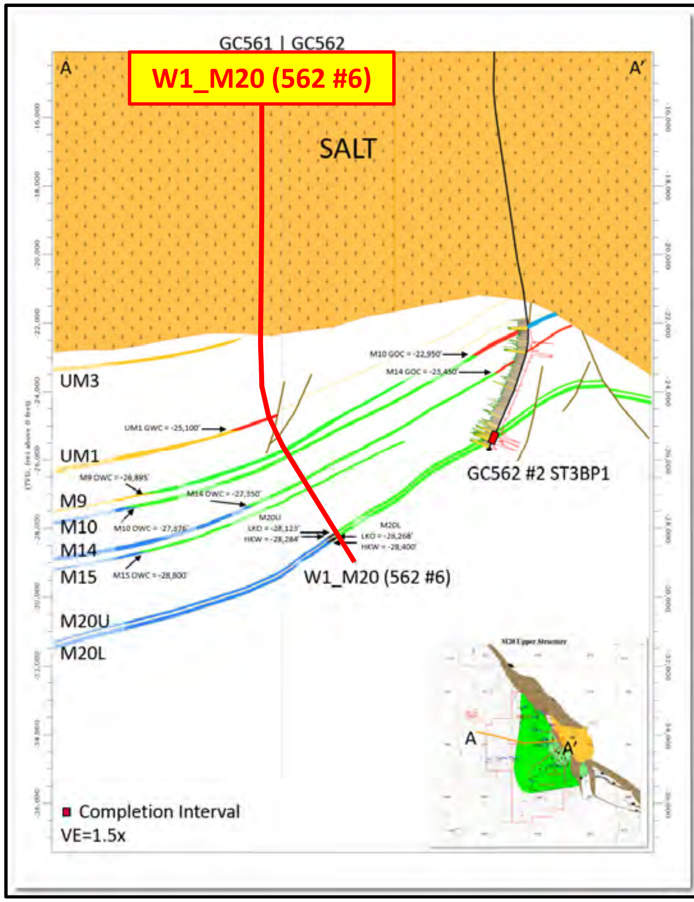
January 21, 2016

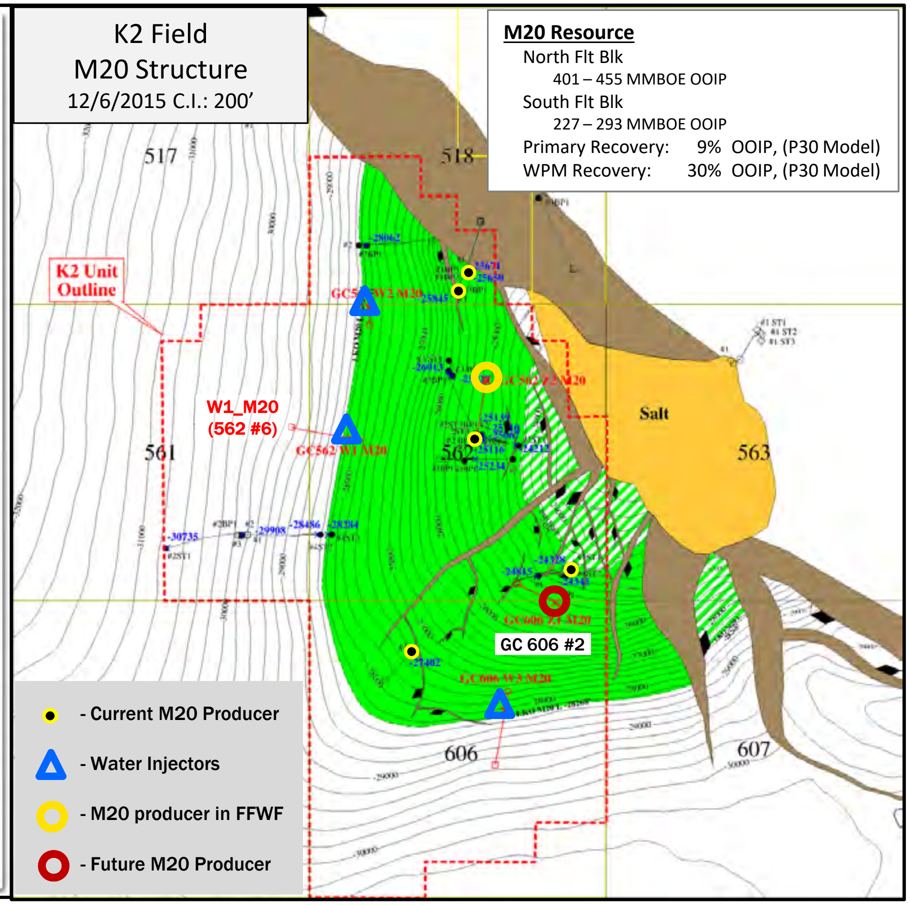
Primary Objective - M20 Pilot WF Test

1. Confirm Presence of Reservoir Quality Sand
2. Pressure sink at M20 Penetration
3. Short term, high rate injection without plugging
4. Confirm pressure response in up-dip producer

Secondary Objective - M9 Exploitation

- Test M9 North Amplitude
- M9 Recovery Potential: 6 - 28 MMBOE
- If PWF fails - M9 Recompletion or S/T
- Additional potential in M10 and M15





APC-01166104

M20 Waterflood – Assumptions for Economics

- **Pilot WF (213 MM$)**
  - Drill and minimally complete pilot injector
  - Conduct rig based injection test, (Rowan Resolute at 649 M$/D rig rate)
  - Assumed test duration of 60 days
  - Maximum rate is 18 bpm (~25,000 bwipd)
  - Discharge pressure sufficient to exceed fracture pressure to eliminate risk of plugging completion
  - Monitor for pressure response in up-dip, shut-in producers
- **Final Engineering Study for Facilities (11.3 MM$)**
- **Full-field Waterflood (888 MM$)**
  - Hosted by MP TLP – 30,000 bwpd seawater treatment and injection
  - Remove excess equipment to reduce weight
  - Turbine driven Sulzer injection pump - 11,600 psi discharge pressure, (~3500 psi greater than Shenzi WF)
  - Convert dry tree TTR to injection riser
  - Install injection distribution line from MP to K2
  - Complete PWF well, D&C 2 new injectors and 1 new producer, (300 M$/D rig rate)
- **Incremental Waterflood Recovery (116 MMBOE)**
  - Simulation models history matched with P30 and P70 net sand maps
  - Primary recovery is ~9%
  - Waterflood recovery is average incremental from P30 and P70 models
  - Models include 30% reduction in movable oil by water displacement
  - Waterflood recovery ~28%

K2 FIELD - M20 WATERFLOOD - ECONOMIC SUMMARY

WTI OIL PRICE FLAT 60 $/BO - WI = 41.8%, NRI = 42.29%

		SENSITIVITY TO OIL PRICE (Base Case: P30 & P70 average, Movable Oil minus 30%)					
		OPTION 5			OPTION 5 (Facil Capital reduced by 20%)		
		$85 WTI	*$60 WTI*	*$40 WTI*	*$85 WTI*	*$60 WTI*	*$40 WTI*
			Reference			Reference	
GROSS							
Capital	MM$	1,181	1,181	1,181	1,107	1,107	1,107
Recovery	MMBOE	116	116	116	116	116	116
NET							
Capital	MM$	494	494	494	463	463	463
Recovery	MMBOE	49	49	49	49	49	49
BTAX							
NPV10	MM$	689.1	338.3	55.1	712.4	361.6	78.4
P/I	$/$	1.95	0.96	0.16	2.16	1.10	0.24
ROR	%	29.4	21.0	12.2	30.9	22.3	13.2
ATAX							
NPV10	MM$	421.2	200.0	21.5	437.5	216.3	37.8
P/I	$/$	1.19	0.57	0.06	1.33	0.66	0.12
ROR	%	26.9	19.3	11.2	28.5	20.6	12.2
Payout	Yrs	7.4	8.5	10.5	7.3	8.3	10.2
F&D	$/Boe	10.1	10.1	10.1	9.5	9.5	9.5
LOE	$/Boe	8.4	8.4	8.4	8.4	8.4	8.4

NOTES:
- Base Case is an average of P30 and P70 Models each with Movable Oil Reduced by 30%.
- All economics are run with incremental production and capital.
- Waterflood incremenetal recovery is M20 only.
- Discount Date for economics is Apr-2016, (1st investment following project sanctioning).

K2 FIELD - M20 WATERFLOOD - ECONOMIC SUMMARY

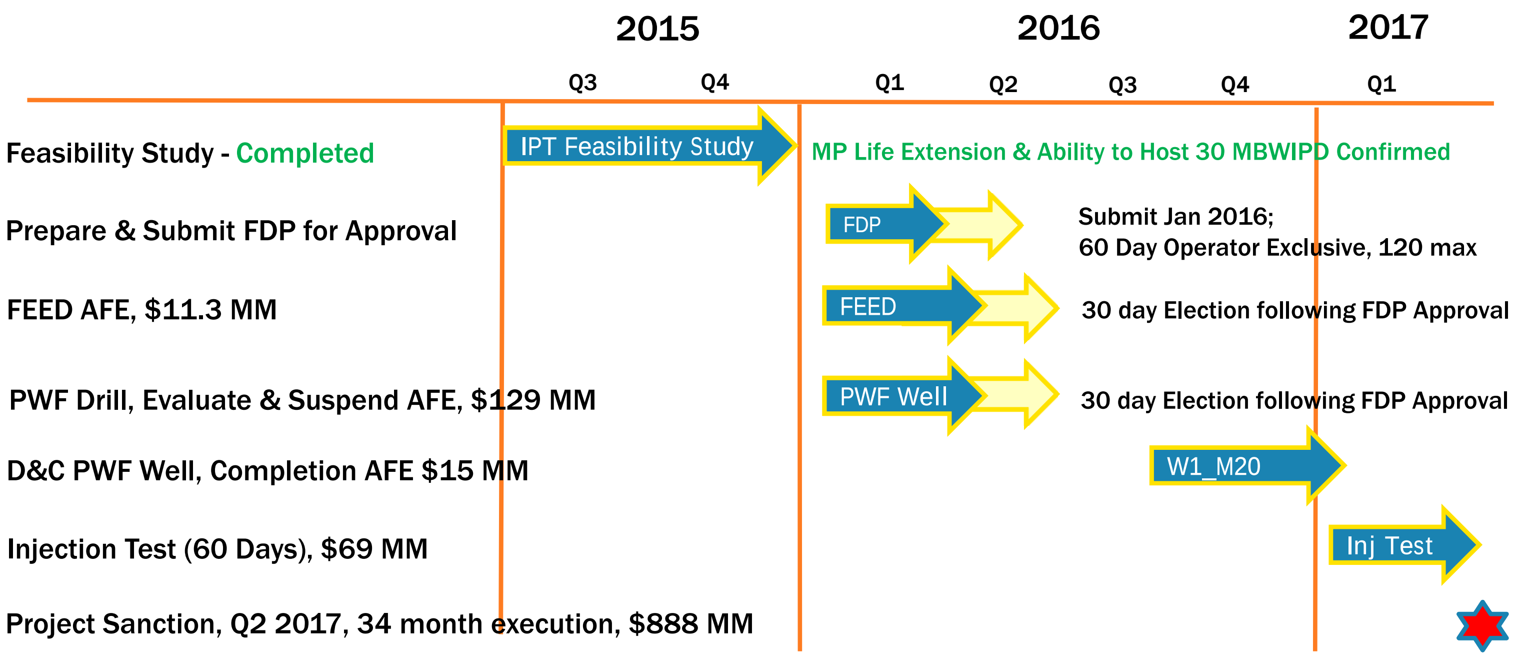
WTI OIL PRICE FLAT 60 $/BO - WI = 100%, NRI = 87.5%

		SENSITIVITY TO OIL PRICE (Base Case: P30 & P70 average, Movable Oil minus 30%)					
		OPTION 5			OPTION 5 (Facil Capital reduced by 20%)		
		$85 WTI	*$60 WTI*	*$40 WTI*	*$85 WTI*	*$60 WTI*	*$40 WTI*
			Reference			Reference	
GROSS							
Capital	MM$	1,181	1,181	1,181	1,107	1,107	1,107
Recovery	MMBOE	116	116	116	116	116	116
NET							
Capital	MM$	1,181	1,181	1,181	1,107	1,107	1,107
Recovery	MMBOE	101	101	101	101	101	101
BTAX							
NPV10	MM$	1,375.0	630.9	29.4	1,430.7	680.4	85.2
P/I	$/$	1.63	0.75	0.04	1.82	0.86	0.11
ROR	%	26.9	18.9	10.5	28.3	20.1	11.5
ATAX							
NPV10	MM$	835.1	366.0	(13.3)	874.2	401.1	25.9
P/I	$/$	0.99	0.43	(0.02)	1.11	0.51	0.03
ROR	%	24.6	17.4	9.7	26.1	18.6	10.7
Payout	Yrs	7.7	8.9	11.1	7.5	8.6	10.7
F&D	$/Boe	11.7	11.7	11.7	10.9	10.9	10.9
LOE	$/Boe	9.7	9.7	9.7	9.7	9.7	9.7

NOTES:
- Base Case is an average of P30 and P70 Models each with Movable Oil Reduced by 30%.
- All economics are run with incremental production and capital.
- Waterflood incremenetal recovery is M20 only.
- Discount Date for economics is Apr-2016, (1st investment following project sanctioning).

Q&A

Timeline to Waterflood Sanction



- √ Completed Feasibility Study for Pilot and Full Field Waterflood
- Submit FDP, FEED and PWF Drilling AFE to partnership January 2016
- Spud well in Q4, 2016; install minimal M20 completion
- Conduct Injection Test beginning late 2016 (sufficient duration to verify response – 30 to 120 Days)
- Sanction Project Q2, 2017 (following 2 months for injection test evaluation), (34 month execution)